**Borg-Warner**

# 1978 Annual Report

**Sales up 14%; earnings 29%**

**All major business areas show improvement**

**Manufacturing return is 5% of each sales dollar**

**Return on equity of 14.6% is best since 1955**

## Inside the company

Borg-Warner is a diverse operating company whose beginning was rooted in the auto industry and whose future is now entwined in the many markets that are basic to the world's economy.

Our products are largely durable goods, and few of them reach individual consumers with our name on them. More often they are components, both major and minor, in products made by others.

We are major producers of air conditioning and refrigeration, chemicals and plastics, machinery and equipment for a spectrum of industries, and components for vehicles of all kinds. Our financial services include inventory and retail financing, leasing and special insurances; and our nationwide protective services aid in the constant fight against fire and theft.

As the drawings in this report illustrate, we are involved in the business of everyday life; and we are working to better it in ways basic and extraordinary.

## Inside this report



## Dial 800-621-5445 for Borg-Warner NEWS

Beginning March 20, you can get a quick update on recent Borg-Warner news developments by calling 800-621-5445. There is no charge to you for "800" line calls.

If you live in Illinois, phone 312-322-8600.

See page 19 for more details.

Copies of the documents describing the company's principal pension plan are available by writing to the Corporate Secretary.

The Form 10-K Annual Report to the Securities and Exchange Commission will be available in April. A copy of this report may be obtained by writing to the Corporate Secretary.

# The year in brief

Year ended December 31

| | | 1978 | 1977 | Change |
|---|---|---|---|---|
| | | | *(millions except per share data)* | |
| **Operations** | Net sales | $2,326.0 | $2,031.9 | +14% |
| | Net earnings | 133.8 | 104.0 | +29% |
| | Net earnings retained in business | 94.5 | 69.5 | +36% |
| **Per share of common stock** | Net earnings | $ 6.24 | $ 4.93 | +27% |
| | Dividends paid | 1.85 | 1.65 | +12% |
| **Financial data** | Shareholders' equity | $ 966.1 | $ 872.2 | +11% |
| | Return on average equity | 14.6% | 12.9% | |
| | Book value per share of common stock | 45.64 | 41.10 | +11% |
| **Other data** | | | | *(thousands)* |
| | Average number of common shares outstanding (fully diluted) | 21,416 | 21,093 | |
| | Number of shareholders at year end | 55.9 | 57.0 | |
| | Number of employees | 54.8 | 39.3 | |

# Sales and earnings by product or service area

| | | 1978 | 1977 | 1976 | 1975 | 1974 | 1973 |
|---|---|---|---|---|---|---|---|
| | | | | | | *(millions of dollars)* | |
| **Sales** | Air Conditioning | $ 516.9 | $ 439.2 | $ 352.5 | $ 313.1 | $ 312.4 | $ 275.7 |
| | Chemicals & Plastics | 472.1 | 421.8 | 399.1 | 278.9 | 345.1 | 263.9 |
| | Industrial Products | 474.1 | 434.3 | 410.4 | 378.6 | 316.9 | 262.7 |
| | Transportation Equipment | 862.9 | 735.9 | 668.0 | 597.7 | 628.8 | 540.1 |
| | Sales of present operations | 2,326.0 | 2,031.2 | 1,830.0 | 1,568.3 | 1,603.2 | 1,342.4 |
| | Discontinued operations | — | .7 | 32.4 | 70.7 | 164.6 | 204.4 |
| | | $2,326.0 | $2,031.9 | $1,862.4 | $1,639.0 | $1,767.8 | $1,546.8 |
| **Net earnings** | Air Conditioning | $ 19.6 | $ 18.3 | $ 9.7 | $ 6.0 | $ (1.0) | $ 8.0 |
| | Chemicals & Plastics | 18.5 | 6.6 | 13.2 | (2.3) | 8.6 | 17.4 |
| | Financial and Protective Services | 18.0 | 12.8 | 10.6 | 8.1 | 8.0 | 6.8 |
| | Industrial Products | 34.7 | 33.8 | 21.3 | 17.6 | 12.4 | 7.9 |
| | Transportation Equipment | 43.0 | 32.7 | 27.1 | 15.1 | 18.5 | 23.3 |
| | Earnings of present operations | 133.8 | 104.2 | 81.9 | 44.5 | 46.5 | 63.4 |
| | Discontinued operations | — | (.2) | (.2) | — | 4.3 | 7.9 |
| | | $ 133.8 | $ 104.0 | $ 81.7 | $ 44.5 | $ 50.8* | $ 71.3 |

**After accounting changes*

# Borg-Warner's second half-century is off to a good start

Borg-Warner results for 1978 set records for the company by nearly every measure, including sales, earnings, and dividends.

Sales reached $2.3 billion, up 14% from 1977, indicating some real gain beyond that of inflation alone.

Net earnings climbed 29% to $134 million, compared with $104 million in 1977. Because earnings rose at a higher rate than sales, the company's after-tax return on sales increased to 5.8% versus 5.1% for 1977. Return on manufacturing operations equaled 5.0% in 1978, compared with 4.5% in the prior year.

Per share earnings of $6.24 were 27% above those of 1977 when about 300,000 fewer shares were outstanding.

Each of Borg-Warner's major business areas shared in the record performance with the Chemicals and Plastics group showing the biggest gain in a sharp turnaround from 1977.

Sales by Borg-Warner consolidated units outside the U.S. reached a record $633 million, up 18% from 1977 and equal to about 27% of total sales for the company.

Export sales from U.S. operations added another $213 million to non-U.S. business and were 7% higher than in 1977.

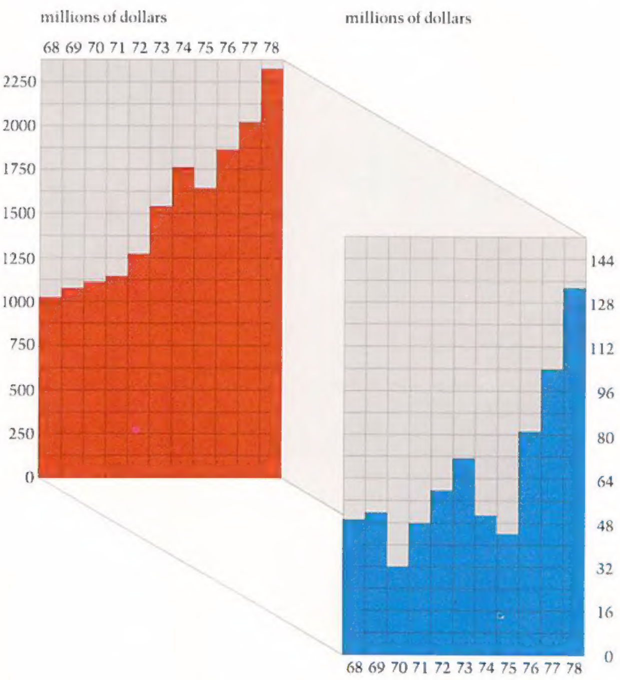
Profit margins on operations outside the U.S. improved considerably in 1978, although they remain below those of U.S. operations. Improved transmission operations in the U.K. and a better performance from Borg-Warner Chemicals in Europe were the main reasons.

Net earnings of Borg-Warner consolidated units outside the U.S. totaled $23.9 million in 1978, five times more than the $4.8 million earned outside the U.S. in 1977. For the first year in several, foreign exchange adjustments were not a factor in the results.

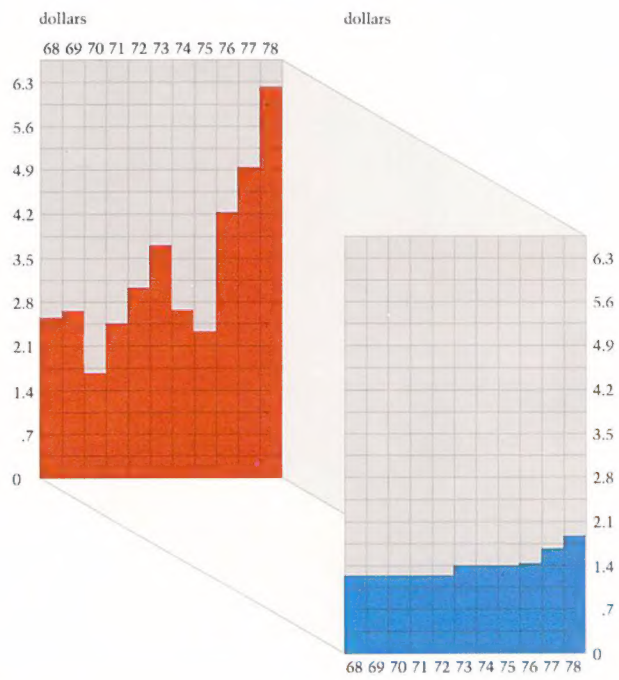
Although unfilled orders is not a significant gauge of Borg-Warner's future performance, the company's backlog passed the $1 billion mark in 1978 for the first time ever. This is 20% above the level of year-end 1977. The bulk of this backlog is relatively short term, except for some air conditioning and nuclear pump orders, which have lead times of one year or more.

Other income of $18.3 million was relatively unchanged from 1977, although the two major components showed large swings. Interest income was down sharply, since the bulk of the company's marketable securities was sold in late 1977 to finance the purchase of Baker Industries. Dividends from investments in affiliates carried

**Net sales** **Net earnings**




**Earnings per share** **Dividends per share**



at cost were $6.3 million, nearly double those of 1977.

Inventories at the end of 1978 were 10% above those of the same time a year earlier. The increase was higher than expected due primarily to strikes at three operations late in the year.

Receivables increased roughly 14% during the year, consistent with the increase in sales for the same period.

Capital expenditures, excluding leases, totaled $76.2 million in 1978 and were $67.4 million the year before. Capitalized leases in 1978 added $39.1 million to capital expenditures, compared with approximately $10 million in 1977. Much of this increase resulted from the completion of Borg-Warner Chemicals' MBS plant in Scotland.

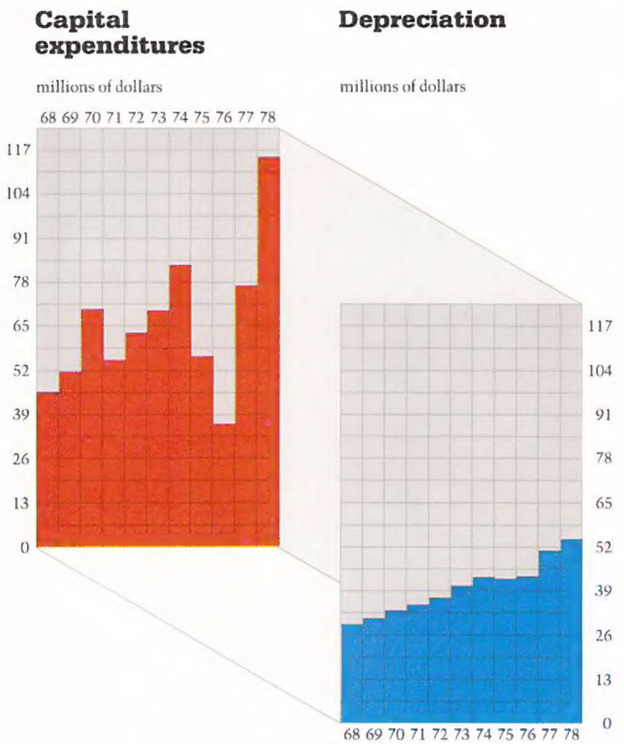
We expect to invest approximately $100 million for new plant and equipment in 1979. This investment will be financed with internally generated funds.

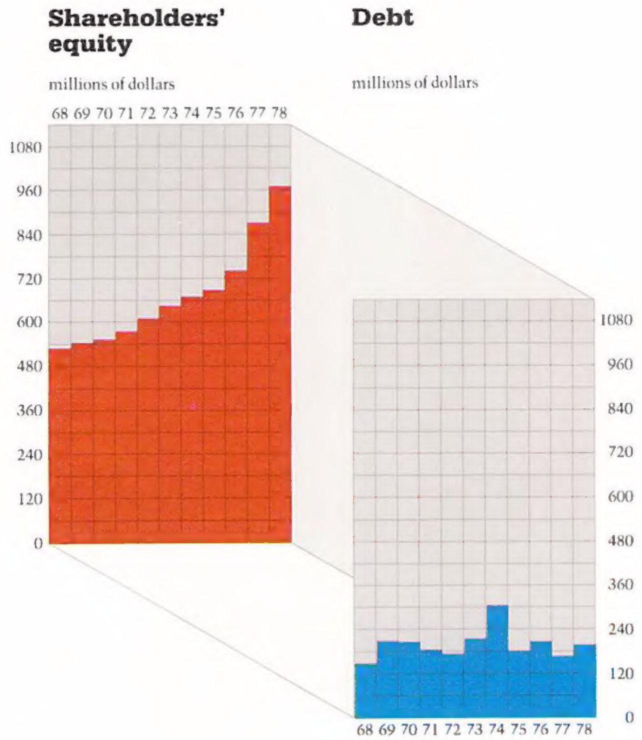
Because of our continued emphasis on cost-cutting programs and success in making more efficient use of our assets, we have been able to hold our debt to a low level. At year-end, the ratio of Borg-Warner's borrowed capital to equity stood at 20%—well within our own self-imposed guideline of 35%.

Research programs are conducted at major divisions throughout the company, as well as at the corporate research center near Chicago. More than 2,000 scientists, engineers, and technicians are engaged in this work.

In 1978, Borg-Warner invested about 2-1/2 cents of each sales dollar in product research, development, and engineering programs. In addition to this $59 million investment is the construction of two test facilities at the corporation's research center. Completion of this expansion project is scheduled for mid-1979.

Some of the new or improved products born of these efforts are highlighted in the review of business operations which follows.



## Transportation group in third straight year of improved results—fourth likely

The Transportation Equipment group rode another good auto industry year to a record performance and expects to do at least as well in 1979 despite an anticipated slight decline in new-car output. New products will make the difference.

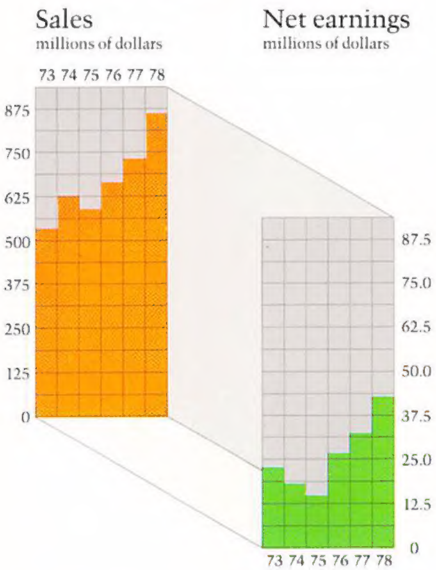
Net earnings for the group in 1978 were up 31% on an increase of 17% in sales.

A factor contributing to a better margin on sales for the group was the improvement at transmission operations in the U.K., which finally reached break-even. Overall group results had been depressed by heavy U.K. losses in the last several years, resulting from the cost of under-utilized capacity.

Operations outside the U.S. for the group as a whole also were much improved from 1977. Automatic transmission operations at Aisin-Warner in Japan were exceptionally strong. Although sales from this joint venture are not consolidated into the group results, earnings, which are included on an equity basis, increased significantly.

The improvement in 1978 was broad-based with almost every unit in the group showing higher sales, earnings, and margins. Sales of aftermarket auto components were up nicely despite a late-year strike at a key plant. Sales of components for trucks, off-highway, agricultural, marine, and industrial applications were all above those of 1977.

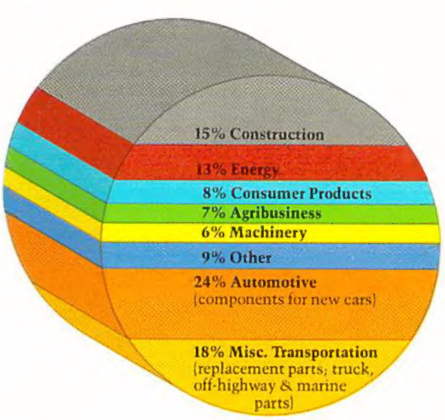
**Transportation Equipment**




| | 1973 | 74 | 75 | 76 | 77 | 78 |
|---|---|---|---|---|---|---|
| %* | 4.3 | 2.9 | 2.5 | 4.1 | 4.4 | 5.0 |

*Margin on sales

**Borg-Warner sales by major markets**




This breakdown is based on 1977 sales data which is the latest available. The 1978 market sales distribution is not expected to differ materially.

In addition to higher volume and increased market share, group results benefited from continuing stress on programs to boost operating efficiency and cut costs.

Even though the auto industry has been characterized by cyclicality and comparatively slow growth, it has taken on a new dynamism in a capital devouring quest for fuel efficiency and clean emissions.

New product opportunities abound in this environment, and the outlook for the Transportation Equipment group is especially good. At the beginning of 1979, the backlog of unfilled orders was higher than ever.

Among the recently introduced products that will play a bigger role in 1979 are: a damper system for torque converter lock-up devices designed to improve automatic transmission fuel economy, a patented variable-speed truck fan-drive that saves fuel and cuts noise, and radiators for small cars.

At the same time, Borg-Warner has lost some clutch business due to foreign and domestic price competition; and the full-time four-wheel drive transfer case contract with Jeep will be phased out during 1979. We will begin supplying a part-time four-wheel drive system to another manufacturer about the same time. This new contract will minimize the loss of the Jeep business.

For the future, the group has signed an agreement to act as U.S. agent for a Japanese-designed passenger car turbo-charger and plans to proceed on a joint venture with the Japanese to manufacture this product in the U.S.

And with the 1979 acquisition of Michigan Powdered Metal Company, a designer and manufacturer of components for the automotive industry, the group has gained important technology in the emerging field of high-density powdered metal manufacturing.

The group is working on new automatic transmissions for small, front-wheel drive cars at research facilities in the U.S., the U.K., and Japan. As part of this program, Borg-Warner is investigating with Fiat, the Italian automaker, the possibility of a joint purchase of a 48% interest in a Dutch firm working to perfect a small-car, continuously variable automatic transmission that would be lighter, more compact, and more fuel efficient than those now available. The U.K. investment program also involves development of microprocessor-controlled automatics that are now in the prototype stage.

## Industrial Products growth continues although pace slows

The Industrial Products group continued to top other Borg-Warner operations in profitability on sales. The group's margin on sales of 7.3% far exceeded the average return of 5% on manufacturing operations for the corporation.

This was the eighth straight year of improved sales and earnings for the group whose two major components are Morse Chain division and the Energy Equipment units. More of the same seems likely in 1979.

It was a record year for Morse Chain spurred by strength in both the industrial and automotive sectors of its business. Power transmission component sales for industrial application, which usually track capital goods spending closely, were higher than expected.

Morse sales to the auto industry benefited from new product introductions, and this impetus is carrying into 1979.

One of these, Morse's patented HyVo® chain, is now being produced at a recently expanded facility for the new, 1980 model front-wheel drive passenger cars. The move to front-wheel drive configuration by the auto makers is expected to accelerate as they strive to retain interior comfort and roominess in cars that are smaller, lighter, and more fuel efficient.

Morse has taken steps to consolidate its non-U.S. manufacturing operations which are now confined to the

U.K., Canada, and joint ventures in Japan and Mexico. This action also contributed to improved results for Morse Chain in 1978.

Buoyed by strong new orders and a record backlog, a recently negotiated three-year labor pact, and streamlined overseas operations, Morse is confident about the future.

Although down slightly from record performance in 1977, the Energy Equipment units (Byron Jackson Pump, Nuclear Valve, Mechanical Seal, and Centrilift, Inc.) had another good year despite generally soft markets and several labor stoppages.

There were bright spots in Mexico and the Middle East, but even in the Middle East some capital programs were deferred. Elsewhere, the petroleum market was flat as were the power, municipal water, and agricultural markets the world over.

Long-term contracts received in 1978 pushed Borg-Warner's energy-related backlog to a record level. In markets that did not measure up to expectations, the energy units captured a bigger part of what business there was. Noteworthy were two major awards for nuclear power plant primary coolant pumps from Babcock & Wilcox and Ontario Hydro; and Centrilift, Inc., won its second large order for deep-well pumps for use in Siberian oil fields.

New products and applications with excellent potential include Mechanical Seal division's first contract for coal slurry pump seals, and Byron Jackson Pump division submersible pumps for water development programs in Saudi Arabia.

Even though the markets important to Borg-Warner's energy-related units show mixed signals for 1979, the company's business is expected to improve in sales and profitability. The political situation in Iran will have some negative impact, but it is impossible to quantify it at this time.

Capital expenditures for the energy units in 1979 will be the highest ever. In addition to a new Centrilift plant in the U.S. and a Mechanical Seal plant in Europe, the Energy Equipment units will continue their 1978 program of upgrading existing plant efficiency and adding service centers to improve their capability in what is a fast-growing service and repair market.

## Plastics group rebounds with record earnings, better margins

The Chemicals and Plastics group, in recovering from a mediocre 1977 performance, set sales and earnings records in 1978 and raised return on sales to 3.9%. While the group's profitability remains below the Borg-Warner average, it is within the performance range of similar businesses in the U.S. and Europe.

Cycolac® ABS plastic resins and pellets are the group's primary products. Varying the chemical formulation and manufacturing process gives Cycolac ABS great versatility in its end-use product application.

In 1978, the European picture was much brighter than in 1977; but excess capacity continues to be a burden there. Stronger demand and consolidation of the group's European operations resulted in efficiencies and cost reductions that will continue to produce benefits in 1979.

In the U.S., demand for ABS was good; and Borg-Warner Chemicals sold a record volume. In the general molding segment associated with the electronic, communication, and small appliance industries, demand was especially strong for flame-retardant, foam, and high-performance grades.

During the year, two new ABS grades were introduced for the U.S. automotive market, where ABS usage averages about 20 pounds per car.

New ABS applications continue; and during the year, Borg-Warner Chemicals received its first sales order for refrigerator interior liners. All major refrigerator manufacturers have approved Cycolac ABS for this use.

As a result of these and other new applications, industry-wide ABS output in the U.S. rose an estimated 5% in 1978. Borg-Warner Chemicals' own ABS output was up 8% for the year. In the long term, the ABS industry is expected to grow at about 8% annually in the U.S. and 6% in Europe.

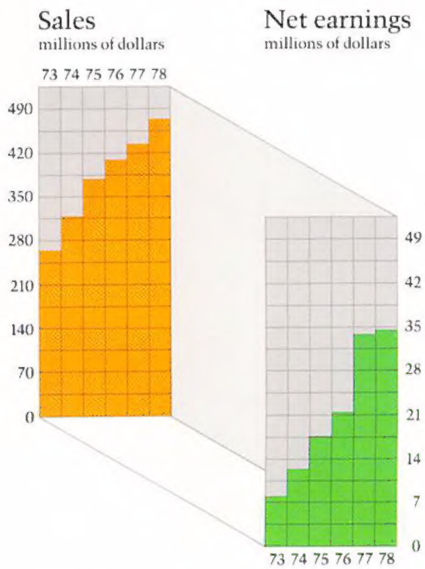
As the world's leading producer of ABS, Borg-Warner's total capacity is roughly one billion pounds a year. About 50 million pounds of capacity is now being added to the company's plant at Ottawa, Illinois; and plans to expand a plant at Cobourg, Ontario, are being completed. This is in line with an expansion policy of adding incremental capacity to existing U.S. plants.

Sites for a major expansion of ABS in the U.S. are now under investigation, and an announcement is planned for mid-1979.

In late 1978, Borg-Warner Chemicals purchased rights to ABS manufacturing and processing technology developed by Toray Industries of Japan. This acquisition will broaden Borg-Warner's ability to use the manufacturing technique best suited to each ABS grade.

A new 25-million pound MBS plant has been completed in Scotland. MBS is a modifier for other plastics that adds strength and reduces brittleness. Production at the new plant has just begun, and related start-up costs will have some adverse effects on 1979 results. Acceptance of this high-technology product, used in clear plas-

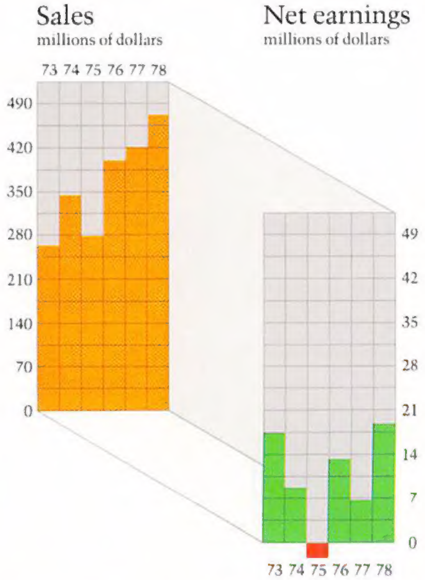
**Industrial Products**




| | 1973 | 74 | 75 | 76 | 77 | 78 |
|---|---|---|---|---|---|---|
| %* | 3.0 | 3.9 | 4.6 | 5.2 | 7.8 | 7.3 |

*Margin on sales

**Chemicals & Plastics**




| | 1973 | 74 | 75 | 76 | 77 | 78 |
|---|---|---|---|---|---|---|
| %* | 6.6 | 2.5 | — | 3.3 | 1.6 | 3.9 |

*Margin on sales


*Borg-Warner is part of your world.*


*And wherever a vehicle moves, or foods are processed, or tools are used…*

tic bottles and film, will be important to achieving a satisfactory return for the group in Europe.

Rising energy and materials costs, cold weather which affected shipments, and the rising cost of regulatory compliance all affected 1978 results.

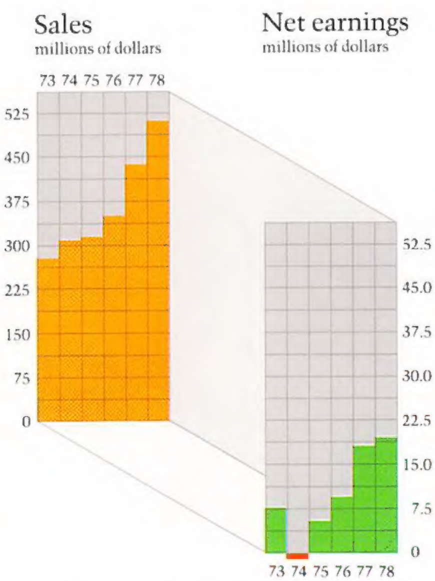
The supply of raw materials, nearly all of which are petroleum derivatives, will be tight for the foreseeable future due to diminished world crude oil production. In addition, aromatics are in very short supply because of the high demand for unleaded gasoline. Since these materials also are used in the petrochemical industry, it is felt that some government allocation of these aromatics on an equitable basis to all industries will be essential. The cost of these raw materials is expected to escalate rapidly.

The outlook for the Chemicals and Plastics group is largely dependent on the economy—especially consumer confidence and durable goods spending—and the ability to improve efficiency and/or adjust prices to reflect higher costs. Maintaining already slim margins in a competitive environment has proved difficult and remains the group's major challenge.

## Air Conditioning group has record sales and earnings despite strike

Each of the four major segments of York's business showed further improvement in topping record 1977

**Air Conditioning**




| | 1973 | 74 | 75 | 76 | 77 | 78 |
|---|---|---|---|---|---|---|
| %* | 2.9 | — | 1.9 | 2.8 | 4.2 | 3.8 |

*Margin on sales

results, but a two-month strike at York's largest plant in late 1978 dulled earnings which were a bit above those of the prior year.

York® sells specially engineered systems for large air conditioning needs, unitary packages for residential and commercial air conditioning, refrigeration for industrial and food applications, and compressors for vehicle air conditioning.

Total sales for the group were up 18%, while sales from non-U.S. operations rose slightly faster. Export sales from the U.S. were 25% above the prior year with major gains from the Middle East, the Far East, and Africa.

Research and development expenditures during 1978 were the highest ever for York; and new, more energy-efficient products spurred York sales.

York expanded its product offerings in the fast-growing heat pump market with the addition of "SunPath"™ single-package heat pump models in 2- to 10-ton capacities suitable for homes and small businesses.

A new 1-1/2-ton capacity heat pump was added to York's split-system Champion™ line. The smaller unit was introduced in response to the lower heating and cooling requirements of smaller, better insulated new homes now being built.

York's centrifugal water chiller sales jumped 30% in 1978. To meet booming demand, York has developed a new line of water chillers that will be on the market in early 1979. York believes they will be the most energy-efficient units then available.

Another product introduced in 1978 was a Borg-Warner gas furnace line with a spark-ignition feature that eliminates the standing pilot light. The resulting energy savings can be as much as 2.8%.

Shipments of York's advanced-design, rotary automotive air conditioning compressor were slowed for much of the year due to manufacturing problems in bringing the new product into production. These start-up problems have been solved, and rotary shipments are expected to be substantial in 1979.

Service continues to be one of York's fastest growing businesses. In recognition of this growth and to better serve its customers, York engineered machinery service operations were detached from the sales force and made a separate entity.

The division has no major contracts in jeopardy in Iran. And with capital spending in the U.S. expected to rise 6-8% in real terms in 1979, the outlook for York in the year ahead is good. Even a 10% dip in new U.S. housing starts would not have a major impact, since York residential air conditioning sales in the replacement and remodeling markets are expected to increase in 1979.

New and energy-efficient products, coupled with the highest backlog in its history, adds to York's confidence that 1979 will be another record year.

**Manufacturing sales and earnings breakdown**

| | Percent of sales | | Percent of mfg. earnings | |
|---|---|---|---|---|
| Group | '78 | '77 | '78 | '77 |
| Air Cond. | 23% | 22% | 17% | 20% |
| Chemicals | 20 | 21 | 16 | 7 |
| Industrial | 20 | 21 | 30 | 37 |
| Transportation | 37 | 36 | 37 | 36 |

## Financial Services group in 13th year of steady growth

After a spotty early history as Borg-Warner's captive finance company, the Financial Services group has posted a steady growth record over the last 13 years as an organization not dependent upon Borg-Warner business. Borg-Warner Acceptance (BWAC), its chief component, is now 25 years old and one of the 12 largest independent finance companies in the U.S.

The group provides a broad array of custom-tailored credit and financial services to customers ranging from corporations to consumers, through some 300 branch offices in seven countries.

Inventory financing is the largest part of the group's business. It provides inventory credit to such industries as home electronics, appliances, recreational vehicles, agricultural equipment, mobile homes, and business vehicles—helping customers boost sales through their ability to offer a wider range of merchandise.

A key reason for this consistent growth has been the group's ability to anticipate and develop new financing products to serve present customers and attract new ones.

For example, leasing, agricultural, and marine equipment financing are markets the group was not serving only a few years ago.

Insurance, although the group's smallest segment, has been the fastest


*wherever conveniences and luxuries are purchased…*

growing. The group provides credit insurance for retailers, banks, savings and loans, and credit unions. It also reinsures property and casualty risks.

In 1978, the group had near across-the-board improvement. The single exception was real estate financing, which totals less than 10% of over $1 billion in outstanding receivables.

Financial Services group finance income grew by 30% in 1978, and net earnings were 26% above those of 1977. At year-end 1978, the group's receivables totaled $1.4 billion, up 25% from the prior year.

The group's after-tax margin on finance income was 7.6% in 1978, down slightly from a 1977 return of 7.9%. Delinquencies, which continue to be in good control, were 1.7% of average outstanding receivables.

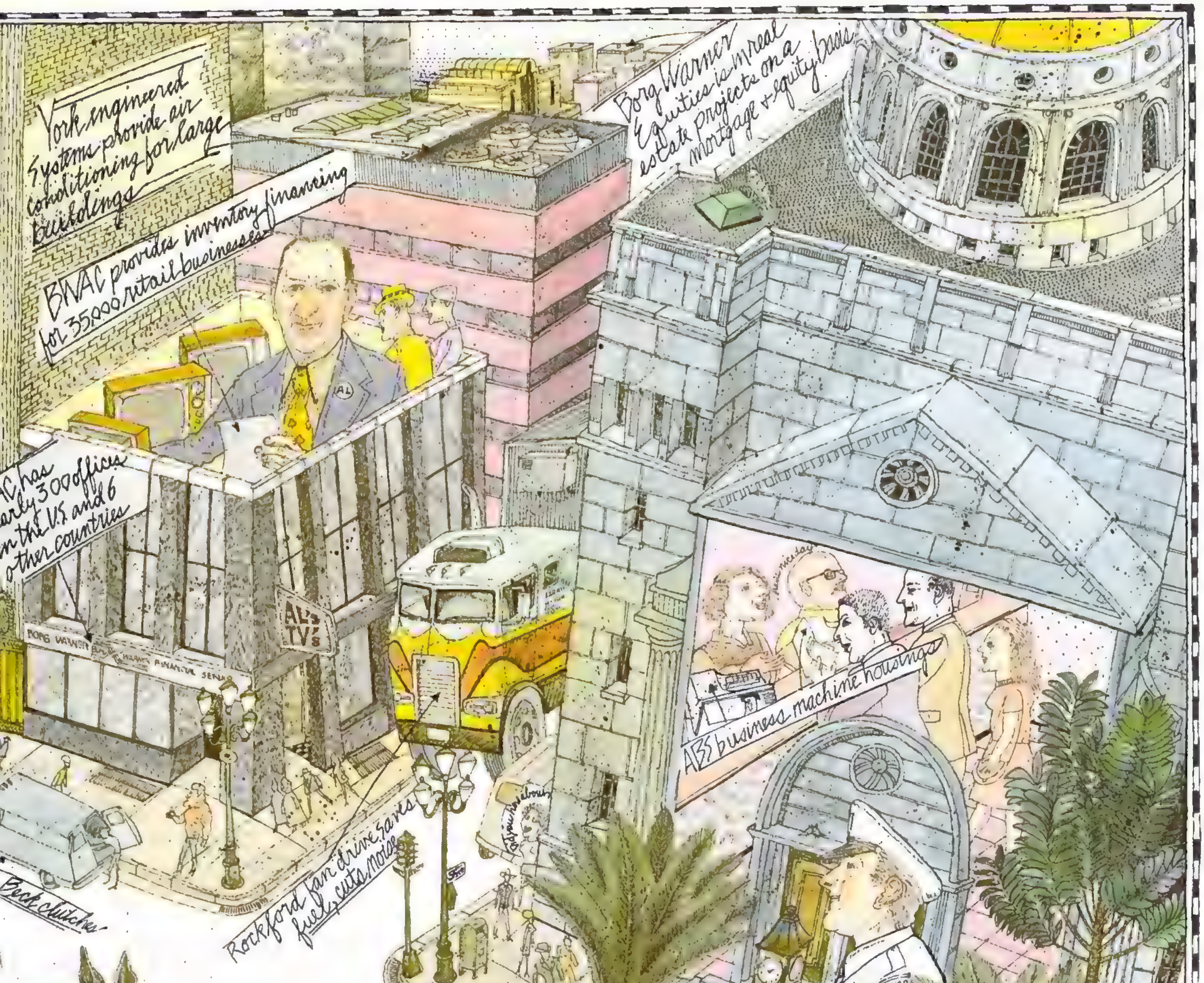
Group operations outside the U.S. also were up from 1977 with Australian and Canadian markets strongest. Operating returns in overseas countries remain slightly below those in the U.S.; but now that BWAC has paid its initiation fee through several years experience outside the U.S., it expects to stay. Non-U.S. receivables make up about 12% of total outstandings.

Because its business concepts are new to these markets, BWAC requires exceptional people and time to train them. Overseas growth will be slow and measured with no plans to open offices in countries other than those BWAC is now in—Australia, Belgium, Canada, The Netherlands, U.K., and West Germany.

The Financial Services group competes for business against banks and other finance companies. Over the years, its performance in key ratios has compared favorably with its ten largest finance company competitors.

BWAC's annual compound rate of growth in gross receivables since 1968, for example, is 24.5%. This is three times the comparable figure of 8.1% for a group of ten major, non-captive finance companies during the same period, based on the most recent data available.

A 26% annual compound growth in earnings during the same ten years is more than three and one-half times the 7.1% earnings growth of the same competitors over the same period.

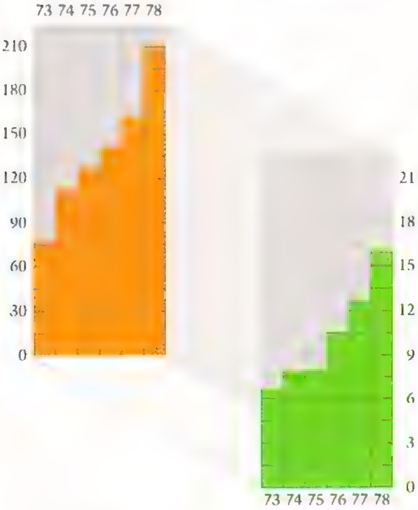



*wherever property is protected, or structures are cooled or warmed, or machinery turns…*

**Financial Services**

Total finance income
millions of dollars

Net earnings
millions of dollars




| | 1973 | 74 | 75 | 76 | 77 | 78 |
|---|---|---|---|---|---|---|
| %* | 8.7 | 7.1 | 6.3 | 7.5 | 7.9 | 7.6 |

*Margin on total finance income

The business of providing credit is demanding, risky, and highly competitive. The salient reason for Borg-Warner's success in it has been the ability to select, train, and advance good people able to plan and manage growth. Most of these people have grown up within the Borg-Warner organization.

To ready them for the opportunities of a business growing rapidly in size and complexity, the group has formed its own "university" in conjunction with the University of Chicago. More than 300 managers in the U.S. and Canada have now participated in this training program.

This experience and training, combined with BWAC's leadership position in its basic business of inventory financing, and its ability to spot new business opportunities early, make the group confident it will be able to grow in finance income and profit by at least 15% again in 1979.

## Protective Services companies' first year is below expectations

Chaos in the residential smoke detector market all but wiped out marked 1978 improvement by other segments of Baker Industries—which now comprise Borg-Warner's protective services companies.

Baker net earnings were $1.9 million, compared with 1977 pro forma earnings of $7.9 million before extraordinary items. Baker's 1978 earnings include a $2.3 million charge to cover plant closing costs. Revenues totaled $209 million versus $183 million in 1977.

During the year, the consumer smoke detector business was plagued with overproduction, excessive inventory, and depressed selling prices that in some cases were below the actual cost of manufacture.

In addition to producing and marketing smoke detectors under the Wells Fargo® and Guardiøn™ brand names, Baker supplies private-labeled units to other marketers. Two major private-label customers refused to honor long-term delivery contracts, further aggravating Baker's problems in 1978.

To bring burgeoning inventories in line with actual sales, Baker will close the larger of its two manufacturing plants and consolidate production at the other.

The market's long-range growth potential remains, although Baker management believes the consumer smoke detector business is likely to get even worse before it gets better.

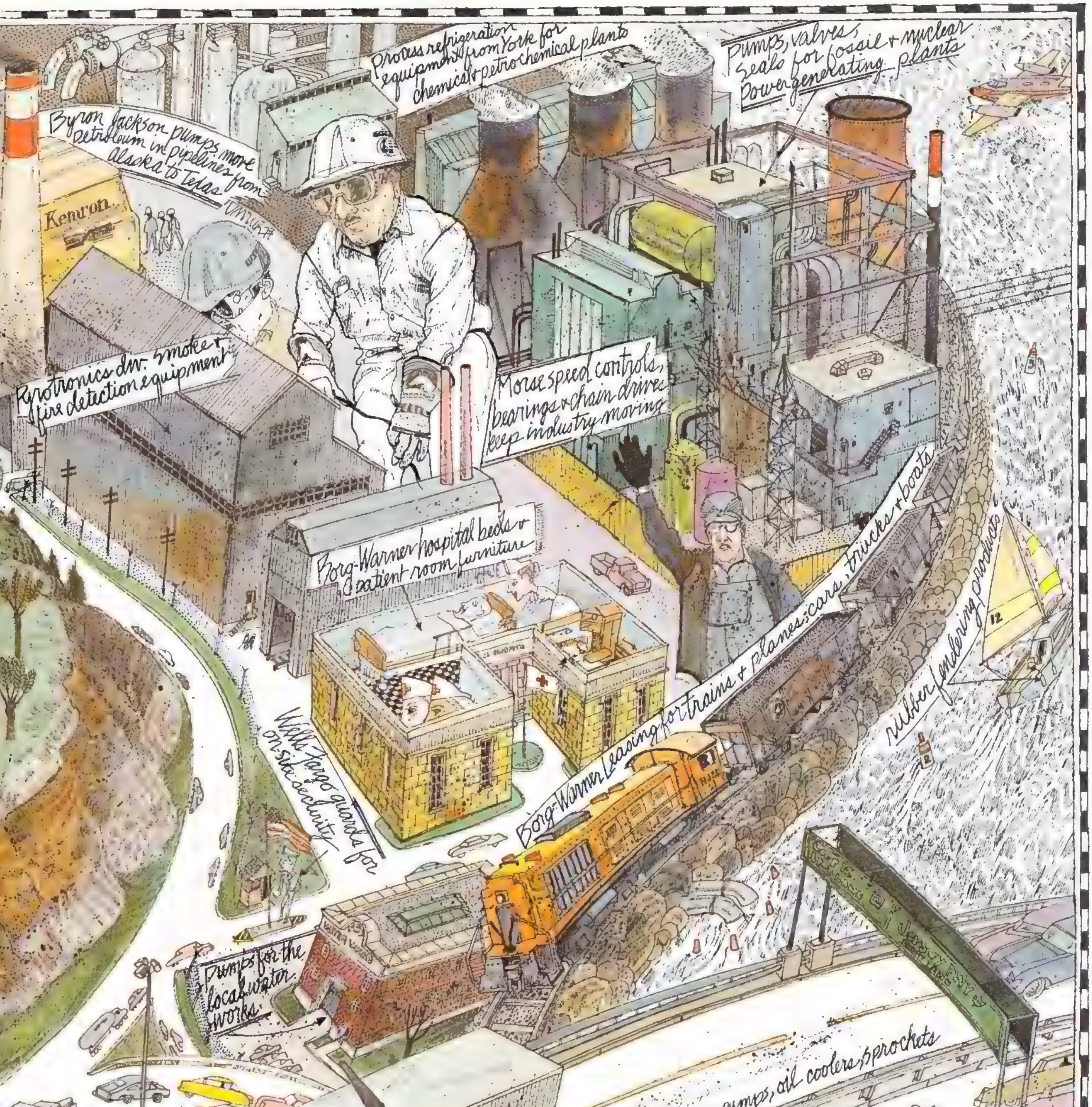
In negotiating the acquisition of Baker in late 1977, both Borg-Warner and Baker Industries management recognized the boom then taking place in the consumer smoke detector business would be short-lived; but the speed of the market's deterioration came faster and with greater magnitude than expected.

Service is by far the largest part of Baker's business and the primary reason Borg-Warner was originally attracted to Baker Industries. The service sectors all did very well in 1978.

The company's Wells Fargo alarm, armored, and guard operations grew an average 16% in revenues and 27% in earnings in 1978. Continued growth is expected in 1979 and beyond.

This is particularly so in the alarm market where Baker is well positioned due to product advancements such as a multiplex central station unit recently introduced. Guard operations outperformed those of the industry by a significant degree, and the guard division is aggressively opening branches in geographic markets not now covered by Baker.

Baker remains the only full-line protective service company in the U.S.; and while 1979 earnings will fall short of 1977 results, they should be double those of 1978.




*wherever fuels are produced, or electricity is generated, chances are Borg-Warner is involved.*

# A year of progress and achievement; dynamic change and exciting future

*An interview with James F. Beré and Robert O. Bass*

**What progress was made toward achieving Borg-Warner's strategic plan objectives in 1978?**

*Chairman James F. Beré:* The key objective of our five-year plan has been to equal or exceed the median return on equity of the *Fortune* "500" companies by the end of 1979. In 1978, our ROE reached an average 14.6%—our best since 1955. We don't know yet what the 1978 *Fortune* "500" median will be, but in 1977 it was 13.5%. Our 1978 ROE using *Fortune's* method of calculation is 13.8%. This should put us close to, and perhaps over, our goal a year ahead of time. But we have no intention of stopping at the median point.

*President Robert O. Bass:* As part of our long-range planning, we also measure performance in inventory and receivables turnover, our return on investment, and our return as a percent of manufacturing sales.

Improving profitability is a tough job; in periods of high inflation, it's even tougher. Still, we made good progress again in 1978 toward the goals we set for ourselves at the beginning of the current five-year plan. Margins have been our biggest challenge. Though they have improved in each year since 1975, our performance is not yet up to our goal.

At the same time, we made more progress than anticipated in asset management. It shows up in our faster inventory turnover and quicker collection of what customers owe us. As a result, we've been able to operate with relatively low debt. Better asset utilization was enough to offset some of our shortfall on margins and allowed us to come closer to our return on investment target.

Ironically, this low debt penalizes us when we compare our return on equity with that of the other *Fortune* "500" companies. I think perhaps return on total capital employed, which combines debt and equity, is a truer measure of how effectively management is using the company's assets. Our relative standing on this yardstick is much better.

**Where did the company fall short in terms of 1978 objectives?**

*Bass:* Operating margins continue to be a problem, although we've made good progress from the recession year of 1975. About a third of our improvement comes from formal cost reduction programs. The rest is due to price and volume increases, product mix adjustments, and an increase in productivity.

Cost reduction is no longer something we think about only during hard times. We've built a full-time cost reduction philosophy into our planning, and we are budgeting improvements every year. Even so, there is a limit to how much we can accomplish through cost reduction; and pass-through price increases will not be possible indefinitely, nor should they be.

**Some people see the proposed merger with Firestone as out of step with your long-range objective of lessening involvement in cyclical industries—especially auto.**

*Beré:* No company has only one objective. The creative task of management is to balance and place priorities on different objectives.

While a substantial part of Firestone's tire output is sold to auto manufacturers for new cars, the largest part of their tire business is for the replacement market. New-car sales and the replacement parts business differ in many respects. For one thing, they're on different cycles—in fact, they have been largely contracyclical to each other over the years. Couple this fact with Firestone's network of automobile service centers, which are basically service businesses, and I think you can see that the proposed merger is not contary to our stated objective of reducing our cyclicality.

Perhaps we haven't been very clear in communicating our actual strategic objective in this regard. We're comfortable with the automobile industry and its important role in our company. We have a generation of people trained to react effectively in this market; they're nimble, they understand the personalities of the original equipment manufacturers and other supplier firms. It is not our intent to downgrade this valuable asset. I'm convinced the auto industry offers

exciting opportunities for supplier firms like Borg-Warner in the coming years, and we have a number of new products for this market that support my optimism.

**If the Firestone merger is approved by shareholders, what changes might we expect?**

*Beré:* We've already stated that Firestone and Borg-Warner would continue to be separate companies, each with its own operating management, reporting to a holding company for general direction and coordination. At Borg-Warner, we will continue to believe in a largely decentralized, locally autonomous organization; and our philosophy of delegating decisions to the people who have to live by them pervades our present operations.

**Are Borg-Warner and Robert Bosch GmbH making any progress in developing their relationship beyond Bosch's initial equity investment in Borg-Warner?**

*Bass:* It's true that not much of a concrete nature has happened since the Bosch company made an investment in our shares in early 1977. I don't think this should be surprising. We're both large and complex companies; distance and language make things more difficult; we both have employees who are convinced they can do it better than anyone else (and that's an asset). These things take time to work out. We are building some close working relationships and getting to know each other better. Most important, the desire is still there—on both sides. Eventually, something will come of it.

**How do you feel about the Baker Industries acquisition in view of their poor results in 1978?**

*Beré:* I still think it was a good decision. We expected troubles in the residential smoke detector business, but not as soon and not as severe. However, it was the growth potential of their service businesses—alarm, armored, guard—that attracted us to Baker. These businesses all did well in 1978, and we are enthusiastic about their future.

*James F. Beré*

**What impact did strikes have on 1978 results, and what do you see ahead on the labor scene for 1979?**

*Bass:* We had three significant strikes in the final quarter. We have few major labor contracts expiring in 1979; most of our United Auto Worker labor contracts are not up until early 1980. But the trucking, rubber, and auto industries all face difficult bargaining, especially in view of the President's wage guidelines. Of course, any disruption that affects our customers or our ability to ship goods would ultimately affect us.

**Speaking of the President's wage guidelines, what is your reaction to his voluntary wage and price control program?**

*Bass:* We've promised the President we would support his inflation fight by living within the guidelines as we understand them. It's been a tough job—both to live within them and to understand them. Our commitment has made recent labor negotiations more difficult.

Although the three strikes I mentioned earlier all were settled within the guidelines, they were pushed to the limit.

We don't like controls, even when they are voluntary. Their record of success has been poor. But we will give them an honest try; if our customers and their customers do the same, perhaps it will help.

**Is there really anything individuals can do to stop inflation?**

*Beré:* That's a tough question. We'd all like something done about high inflation—so long as it is someone else who does it. Doing something requires short-term sacrifice, and few of us want to be first in that line.

However, as individuals, each of us must take responsibility for the society in which we live. One thing we can do is make certain our elected officials get a clear message through our letters and at the ballot box that we understand the causes of the inflation we are suffering and that the major cause is government spending that has far exceeded revenues without letup. To stop inflation, the government must stop the money presses.

But unchecked government spending is not the sole culprit. Business must seek ways to improve efficiency to offset inflated costs rather than simply passing these costs on to customers in higher prices. Labor too feeds the inflation spiral when it seeks wage adjustments that far exceed increases in productivity. I believe the eventual solution to the problem lies in our willingness to jointly accept the challenge of inflation and fight it together.

**What about the economic outlook for '79 as you see it now?**

*Beré:* We're in line with what I believe is the consensus view at this point. That is, that the U.S. economy will remain relatively strong for a while before beginning to trail off in the second half of this year. How serious the dip will be no one knows, but the signals our operating people are getting from their customers suggest that any decline will be moderate.

There will always be surprises like the recent developments in Iran. It's too soon to know if that will have an impact; but at present, we look for 1979 auto sales in unit volume to be about 5% below the very good year the industry had in 1978. A drop in new housing starts may be more pronounced—as much as 10% below what also was a good year in 1978. The third part of the economy that most affects our own performance is capital goods spending. We expect this to be one of the stronger sectors of the economy in 1979 with real growth of 6-8% partially offsetting declines in the auto and housing markets.

**How will Borg-Warner fare in the environment you see?**

*Bass:* I think we'll do pretty well. We got burned in the 1974-75 recession, and we haven't forgotten it. We've been preparing for the next one since that time.

Our financial position now is a lot stronger than it was in 1974. Our debt level is much lower, our inventory levels and inventory turns are in better shape, and our days' sales in receivables are nearly one-fourth below those when the recession began. Also, the quality of our earnings is more conservatively based because of our change to LIFO inventory accounting in 1974.

In addition, we have several new products that I believe will lessen the impact of expected downturns in some of our major industries. These include a lock-up torque converter device that will help improve automatic transmission fuel efficiency; Hy-Vo® chain for the new, smaller, front-wheel drive cars; and more energy-efficient air conditioning products.

*Robert O. Bass and recently elected executive vice presidents Elmer Robinson (left) and Jerry Dempsey (right)*

**Does the naming of two executive vice presidents, to whom some group vice presidents now report, signal a new direction in organization?**

*Beré:* These changes were part of our normal planning process and preparation for smooth management succession when Bob Bass is ready to retire. We've made a number of changes that I believe have strengthened our management team during the last couple of years.

**Why doesn't the stock price reflect the progress management keeps talking about?**

*Beré:* That's the hardest question of all. There are many reasons. We can guess at some of them, though others will elude us always. We are trying to overcome it, but we are still a cyclical company in an economy likely nearing the end of a long upward trend; and this may worry investors.

The complexity of our company in itself causes some investors concern and uncertainty. So many factors can affect our business that it is difficult to sort them out and predict what the net effect might be.

More than anything, though, the market sees our past record. Up until the last few years, it hasn't been that exciting or that consistent. True, we've been doing well lately, but then so has the general economy. We have to convince investors that the company can do well through the next economic downturn, whenever that comes. I'm convinced we can.

There have been changes in management, in our approach to planning, and in our operating philosophy that give us greater ability to resist minor declines in our markets and put us more in control of our future, which I personally believe is a very good one.

But the market does not pay a premium for uncertainty; it extracts a penalty. And investors seem to be saying that based on our record, they still view our stock as more risky than many others.

**What about risk-taking? Is it important to the continued health of America's business system?**

*Beré:* Life is risky. There are prudent risks and foolish risks. The manager's job is to know which are which and to balance risk with potential reward. The better the manager, the more good risks he will find and take advantage of.

It is the risk-taker who fuels our economic system and saves us from stagnation. Without risk, there is no innovation, no progress. We must learn to accept without paranoia the mistakes that come with it. As a nation, I think we are losing our technological leadership. Government intervention has removed much of the economic incentive that made risk-taking attractive, and an atmosphere of complacency has been the result.

To my mind, one of the big advantages of the decentralized operating organization we have at Borg-Warner is that it encourages our managers to act as entrepreneurs and rewards them for taking and effectively managing prudent risks.

I hope all our employees feel this sense of participation. They should, because it was their work that made 1978 the great year it was.

*February 23, 1979*

**Industry segments**

Borg-Warner manufacturing operations are classified among four principal industry segments: Air Conditioning, Chemicals & Plastics, Industrial Products, and Transportation Equipment. General corporate assets primarily include cash, marketable securities, and investments and advances. The nature of continuing operations within each segment is discussed in pages 4 through 12. Financial highlights for these segments are as follows for the years ended December 31, 1978, 1977 and 1976.

| *(millions of dollars)* | Sales | | | Earnings | | | Identifiable assets | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1978 | 1977 | 1976‡ | 1978 | 1977 | 1976‡ | 1978 | 1977 | 1976‡ |
| Air Conditioning | $ 516.9 | $ 439.2 | $ 352.5 | $ 42.5 | $ 40.9 | $ 25.4 | $ 210.5 | $ 186.9 | $ 174.6 |
| Chemicals & Plastics | 472.1 | 421.8 | 399.1 | 43.4 | 24.1 | 37.0 | 261.5 | 240.3 | 219.5 |
| Industrial Products | 474.1 | 434.3 | 410.4 | 71.5 | 71.0 | 53.3 | 274.9 | 238.3 | 218.9 |
| Transportation Equipment | 862.9 | 735.9 | 668.0 | 90.3 | 73.1 | 65.7 | 403.8 | 357.2 | 348.1 |
| Sales, operating profit, and assets of segments | 2,326.0 | 2,031.2 | 1,830.0 | 247.7 | 209.1 | 181.4 | 1,150.7 | 1,022.7 | 961.1 |
| Financial Services | | | | 16.1* | 12.8* | 10.6* | 129.0 | 115.7 | 104.8 |
| Protective Services | | | | 1.9* | | | 122.8 | | |
| General corporate expense and assets | | | | (17.2) | (20.5) | (17.1) | 249.5 | 309.0 | 274.4 |
| Interest expense | | | | (26.7) | (25.8) | (26.0) | | | |
| Sales, earnings before taxes and identifiable assets of continuing operations | $2,326.0 | $2,031.2 | $1,830.0 | $221.8* | $175.6* | $148.9* | $1,652.0 | $1,447.4 | $1,340.3 |

*Earnings for the financial and protective services companies are reflected on an after tax basis.

Capital expenditures and depreciation by industry segment are as follows for the years ended December 31, 1978, 1977 and 1976:

| *(millions of dollars)* | Capital expenditures | | | Depreciation | | |
|---|---|---|---|---|---|---|
| | 1978 | 1977 | 1976‡ | 1978 | 1977 | 1976‡ |
| Air Conditioning | $ 9.1 | $ 8.9 | $ 3.5 | $ 6.2 | $ 5.5 | $ 4.9 |
| Chemicals & Plastics | 46.9 | 22.5 | 6.6 | 14.9 | 13.3 | 10.9 |
| Industrial Products | 22.2 | 16.8 | 12.0 | 10.0 | 9.8 | 7.5 |
| Transportation Equipment | 32.1 | 26.5 | 13.3 | 21.9 | 21.0 | 19.6 |
| Corporate | 5.0 | 2.3 | .6 | 2.2 | 1.3 | .5 |
| Total | $115.3 | $77.0 | $36.0 | $55.2 | $50.9 | $43.4 |

**Geographic segments**

Borg-Warner sales, operating profit, and identifiable assets by major geographic area are summarized as follows for the years ended December 31, 1978, 1977 and 1976.

| *(millions of dollars)* | Sales unaffiliated customers | | | Sales inter-segment | | | Operating profit | | | Identifiable assets | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1978 | 1977 | 1976‡ | 1978 | 1977 | 1976‡ | 1978 | 1977 | 1976‡ | 1978 | 1977 | 1976‡ |
| United States | $1,692.7 | $1,496.2 | $1,303.8 | $65.7 | $57.6 | $54.7 | $198.9 | $181.0 | $150.0 | $ 728.8 | $ 666.6 | $593.5 |
| Australia | 143.2 | 127.9 | 131.9 | 4.0 | 2.4 | .7 | 15.4 | 15.0 | 13.3 | 88.9 | 75.0 | 74.0 |
| Canada | 107.0 | 100.3 | 97.0 | 2.6 | 1.0 | 3.9 | 11.0 | 7.5 | 10.4 | 46.7 | 40.2 | 44.0 |
| Europe | 355.2 | 285.0 | 254.4 | 5.1 | 3.6 | 1.0 | 20.3 | 3.0 | 5.3 | 270.5 | 226.7 | 217.1 |
| Other foreign | 27.9 | 21.8 | 42.9 | — | — | .1 | 2.1 | 2.6 | 2.4 | 15.8 | 14.2 | 32.5 |
| Total continuing operations | $2,326.0 | $2,031.2 | $1,830.0 | $77.4 | $64.6 | $60.4 | $247.7 | $209.1 | $181.4 | $1,150.7 | $1,022.7 | $961.1 |

‡Data for 1976 is unaudited

**Sales to major customers**

Sales to Ford Motor Company were approximately 11% of consolidated sales in 1978 and 10% in 1977. No other single customer accounted for more than 10% of consolidated sales in either year.

# Special information for investors

**800 telephone line for latest Borg-Warner update to debut March 20**

Beginning March 20 you can get the latest Borg-Warner news by dialing 800—621-5445. There is no charge to you for "800" calls.

Callers will hear a recorded update that will be changed as often as appropriate but at least on the first Friday of every month. Two lines will be available 24 hours every day. This should eliminate most busy signals, especially during non-business hours.

Messages will be under two minutes long and feature various Borg-Warner people talking about what's happening in their business: new products, new contracts, sales, earnings outlooks, their markets, anything we think will help you keep on top of developments.

If you have comments about this new service, we'd be happy to hear them.

**51st Annual Meeting of Shareholders returns to daytime schedule**

After a successful evening annual meeting to celebrate its 50th anniversary, Borg-Warner's 1979 shareholders' meeting will return to its traditional daytime schedule. The meeting will be held on Tuesday, April 24, at The Art Institute of Chicago and will begin at 9:30 a.m.

**Company history is free to shareholders**

"Borg-Warner: The first 50 years" was recently published and is available to shareholders and others especially interested in the company.

The 48-page, soft-cover booklet chronicles the company's ups, and some downs, under five chief executives.

Write to Dorothy Flynn for your copy. It's free.

**About your stock**

Borg-Warner common stock is listed on the New York, Midwest, Pacific, and London Stock Exchanges and is quoted in the daily stock tables carried by most newspapers. The ticker symbol for Borg-Warner stock is BOR.

The Continental Illinois National Bank and Trust Company of Chicago and Citibank, N.A., in New York act as transfer agents/registrars for your stock. The Continental Bank maintains all Borg-Warner shareholder records for the company.

*Shareholder representative Dorothy Flynn*

Quarterly dividends normally will be mailed so as to reach shareholders on the 15th of May, August, November, and February. We try to time the mailing so your check will reach you on the 15th. Given the vagaries of the mails, actual receipt may vary by a day or two either way.

**Your dividends can be reinvested automatically**

Since 1972, Borg-Warner has offered shareholders the opportunity to reinvest their dividends in additional Borg-Warner shares.

This plan provides a simple and less costly way of automatically adding to your Borg-Warner investment.

If you enroll, we mail your quarterly dividend checks directly to Citibank in New York. They will buy additional Borg-Warner stock for your shareholder account. The plan also allows you to purchase Borg-Warner shares for cash in addition to reinvesting your dividends.

Nearly 3,000 Borg-Warner shareholders are presently participating in this program. If you would like to know more about it, we will send you a leaflet that explains the plan in detail including an authorization form should you decide to join. For your copy, write to Dorothy Flynn.

**Yes, there really is a Dorothy Flynn**

After we mentioned last year that Dorothy Flynn had been named shareholder representative and was available to answer your questions, she began to hear from many of you and even struck up a few friendships. Dorothy is so efficient, one shareholder asked if he was talking with a computer. That comment caused us to include Dorothy's photo in our report this year.

Dorothy knows as much about your shareholder account as anyone; and she knows a lot about Borg-Warner, too. She has worked for our company 29 years. She began her career with the Norge division and has also worked with the Chemicals and Plastics group at their headquarters in West Virginia. She returned to our Chicago headquarters in 1973 as part of the corporate legal staff.

Her past work experience has prepared Dorothy well to handle the myriad of requests she receives from shareholders. It appears her work agrees with her, as she seems to dispense information and advice with good humor and efficiency.

**Ongoing effort results in energy savings**

Part of our cost-cutting programs throughout the company has been a continuing effort to reduce our energy consumption. The thrust of this program has been to modify our housekeeping habits and save energy through adjustments in lighting, heating, ventilation, and air conditioning, as well as improved production procedures.

In 1978, we have cut total energy consumption per production unit by nearly 7%. This savings is the energy equivalent of approximately 90,000 barrels of oil, or the amount of energy required to heat 3,500 Chicago area homes for the entire winter season—even one as bad as this.

**Your contact at Borg-Warner:**

Dorothy Flynn
Shareholder Representative
Borg-Warner Corporation
200 South Michigan Avenue
Chicago, IL 60604
(312) 322-8563

# Summary of accounting policies

The following paragraphs briefly describe the company's significant accounting policies. Certain amounts in the 1977 financial statements have been reclassified to conform to the 1978 presentation.

**Principles of consolidation**
The consolidated financial statements include all subsidiaries except those in Mexico and South America, which are carried at cost due to political and economic uncertainty, and the financial and protective services companies. Investments in the financial and protective services companies and in affiliated companies, at least 20% owned by Borg-Warner, are carried at equity in underlying net assets.

**Marketable securities**
Marketable securities are valued at cost, which approximates market.

**Inventories**
Inventories are valued at the lower of cost or market. Cost of substantially all inventories worldwide is determined by the last-in, first-out (LIFO) method.

**Property, plant and equipment and depreciation**
Property, plant and equipment is valued at cost less accumulated depreciation. Expenditures for maintenance, repairs and renewals of relatively minor items are generally charged to earnings as incurred. Renewals of significant items are capitalized.

Depreciation is computed generally on a straight-line basis over the estimated useful lives of related assets. For income tax purposes, accelerated methods of depreciation are generally used.

**Income taxes**
For financial accounting purposes, investment tax credits are used to reduce income tax provisions over a seven-year period. For federal income tax purposes, investment tax credits are recognized currently.

Taxes have not been provided on undistributed net earnings of subsidiaries and affiliates to the extent these earnings are intended to be reinvested in those companies.

Deferred taxes have been provided on timing differences in reporting certain transactions for financial accounting and tax purposes.

**Earnings per share**
Earnings per common share are based on average outstanding common shares and common share equivalents. Common share equivalents recognize the dilutive effects of common shares which may be issued in the future upon conversion of preferred stock and upon exercise of certain stock options.

**Retirement benefit plans**
All eligible Borg-Warner domestic employees participate in non-contributory pension plans and substantially all non-U.S. employees participate in contributory or non-contributory pension plans. In addition, a number of employees are covered by non-contributory retirement benefit plans providing life insurance and medical benefits. The related expenses are based on independent actuarial valuations and substantially all are funded currently. Expenses include amortization of prior service costs over periods not exceeding 40 years.

# Responsibility for financial statements

To our shareholders:

Borg-Warner Corporation has in place long-standing reporting guidelines and policies designed to ensure that the statements and other information in this report present a fair and accurate financial picture of the company. In fulfilling this responsibility, management must make informed judgments and estimates conforming with generally accepted accounting principles.

The company's comprehensive system of internal accounting controls provides reasonable assurance that assets are protected from improper use, that material errors are prevented or detected within a timely period, and that records are sufficient to produce reliable financial reports. Formal corporate policies demanding high standards of ethical and financial integrity are part of this system, which is subject to frequent review by an internal audit staff and the corporation's independent public accountants.

An Audit Committee composed entirely of Borg-Warner directors who are not employees of the company meets at least twice a year with the company's management and independent public accountants. They review financial results and procedures, internal financial controls and internal and external audit plans and recommendations. To guarantee independence, the Audit Committee and the independent public accountants have unrestricted access to each other with or without the presence of management representatives.

James F. Beré
*Chairman and*
*Chief Executive Officer*

James J. Gavin, Jr.
*Senior Vice President and*
*Chief Financial Officer*

# Statement of earnings

Borg-Warner Corporation and consolidated subsidiaries
Year ended December 31

**Earnings**

| | 1978 | 1977 |
|---|---|---|
| | *(millions of dollars except per share data)* | |
| Sales and other income: | | |
| Net sales | $2,326.0 | $2,031.9 |
| Other income | 18.3 | 17.4 |
| | 2,344.3 | 2,049.3 |
| Costs and expenses: | | |
| Cost of sales | 1,780.7 | 1,554.8 |
| Depreciation | 55.2 | 50.9 |
| Selling, general and administrative expenses | 274.9 | 252.6 |
| Interest and other financial charges | 26.7 | 25.8 |
| Minority interests | 3.0 | 2.6 |
| Provision for income taxes | 88.0 | 71.4 |
| | 2,228.5 | 1,958.1 |
| Earnings from manufacturing operations | 115.8 | 91.2 |
| Earnings from financial services companies | 16.1 | 12.8 |
| Earnings from protective services companies | 1.9 | — |
| Net earnings | $ 133.8 | $ 104.0 |

**Per common share**

| | 1978 | 1977 |
|---|---|---|
| Net earnings | $ 6.24 | $ 4.93 |

*See accompanying summary of accounting policies and notes to financial statements.*

# Balance sheet

Borg-Warner Corporation and consolidated subsidiaries
December 31

**Assets**

| | 1978 | 1977 |
|---|---|---|
| | *(millions of dollars)* | |
| **Current assets:** | | |
| Cash | $ 37.3 | $ 19.1 |
| Marketable securities | 52.4 | 5.8 |
| Receivables, less allowance for losses of $15.7 million in 1978, $13.0 million in 1977 | 296.2 | 259.1 |
| Inventories | 369.0 | 334.9 |
| Other current assets | 34.2 | 29.8 |
| **Total current assets** | 789.1 | 648.7 |
| **Investments and advances,** principally unconsolidated subsidiaries | 351.5 | 343.8 |
| **Property, plant and equipment** | 493.7 | 443.5 |
| **Deferred charges less amortization** | 17.7 | 14.2 |
| | $1,652.0 | $1,450.2 |

**Liabilities and shareholders' equity**

| | 1978 | 1977 |
|---|---|---|
| **Current liabilities:** | | |
| Notes payable | $ 30.4 | $ 23.8 |
| Accounts payable and accrued expenses | 322.6 | 260.2 |
| Income taxes | 35.3 | 31.5 |
| **Total current liabilities** | 388.3 | 315.5 |
| **Warranties and other liabilities** | 61.4 | 49.5 |
| **Deferred income** | 20.6 | 18.7 |
| **Deferred income taxes** | 33.2 | 30.8 |
| **Long-term debt** | 164.2 | 147.5 |
| **Minority shareholders' interest in consolidated subsidiaries** | 18.2 | 16.0 |
| **Shareholders' equity:** | | |
| Capital stock: | | |
| Preferred stock, liquidation preference $21.2 million in 1978, $27.6 million in 1977 | 1.3 | 1.7 |
| Common stock | 53.7 | 53.7 |
| Capital in excess of par value | 105.3 | 104.5 |
| Retained earnings | 827.3 | 736.8 |
| | 987.6 | 896.7 |
| Less treasury common stock, at cost | 21.5 | 24.5 |
| **Total shareholders' equity** | 966.1 | 872.2 |
| | $1,652.0 | $1,450.2 |

*See accompanying summary of accounting policies and notes to financial statements.*

# Statement of changes in financial position

Borg-Warner Corporation and consolidated subsidiaries
Year ended December 31

| | | 1978 | 1977 |
|---|---|---|---|
| | | *(millions of dollars)* | |
| **Operations** | Earnings from manufacturing operations | $115.8 | $ 91.2 |
| | Earnings from financial and protective services companies | 18.0 | 12.8 |
| | Net earnings | 133.8 | 104.0 |
| | Non-fund charges (credits) to earnings: | | |
| | Depreciation | 55.2 | 50.9 |
| | Amortization of deferred charges | 8.2 | 13.0 |
| | Earnings of financial and protective services companies reinvested | (12.2) | (10.8) |
| | Other, net | 5.1 | 4.8 |
| | **Total from earnings** | 190.1 | 161.9 |
| | Funds provided by (used for) short-term assets and liabilities: | | |
| | Receivables | (37.1) | (49.0) |
| | Inventories | (34.1) | 4.5 |
| | Other current assets | (4.4) | (8.2) |
| | Accounts payable and accrued expenses | 62.4 | 28.3 |
| | Income taxes | 3.8 | (19.5) |
| | | (9.4) | (43.9) |
| | Funds provided by (used for) long-term assets and liabilities: | | |
| | Additions to deferred charges | (11.7) | (8.5) |
| | Other | 4.8 | (1.8) |
| | | (6.9) | (10.3) |
| | **Net funds provided by operations** | 173.8 | 107.7 |
| **Dividends** | | | |
| | **Dividends declared and paid** | (39.3) | (34.5) |
| **Investments** | | | |
| | Capital expenditures | (115.3) | (77.0) |
| | Disposal of property, plant and equipment | 9.9 | 6.2 |
| | Investment in Baker Industries | (9.9) | (112.7) |
| | Net other (increase) decrease in investment and advances | 18.8 | (8.2) |
| | **Net funds used in investments** | (96.5) | (191.7) |
| **Financing** | | | |
| | Change in notes payable | 6.6 | (11.9) |
| | Long-term debt: | | |
| | Increases | 44.5 | 19.2 |
| | Reductions | (27.8) | (42.1) |
| | Common stock: | | |
| | Proceeds from the sale of common stock | — | 62.4 |
| | Purchase of treasury common stock | (11.8) | (9.7) |
| | Sales of treasury common stock | 15.3 | 8.1 |
| | **Net funds provided by financing** | 26.8 | 26.0 |
| | **Net increase (decrease) in cash and short-term securities** | $ 64.8 | $(92.5) |

*See accompanying summary of accounting policies and notes to financial statements.*

# Notes to financial statements

**Operations outside the United States**
Borg-Warner's equity in net earnings of consolidated subsidiaries located outside the U.S. was $23.9 million in 1978 and $4.8 million in 1977.

Borg-Warner's equity in the net assets of these companies at December 31 is summarized as follows:

| *(millions of dollars)* | 1978 | 1977 |
|---|---|---|
| Current assets | $290.9 | $235.6 |
| Non-current assets | 176.1 | 145.3 |
| Total assets | 467.0 | 380.9 |
| Current liabilities | 114.6 | 96.5 |
| Non-current liabilities | 106.6 | 92.7 |
| Net assets before minority interests | 245.8 | 191.7 |
| Minority interests | 18.2 | 16.0 |
| Borg-Warner's equity in net assets | $227.6 | $175.7 |

Consolidated net earnings for the years 1978 and 1977 include net exchange credits of $62 thousand and charges of $1.0 million, respectively.

Borg-Warner's equity in underlying net assets of its Mexican and South American subsidiaries at December 31, translated at exchange rates in effect at each year-end, exceeded the carrying value of these companies by $15.1 million for 1978 and $11.6 million for 1977. Dividends from these companies, which are included in earnings, amounted to $600 thousand in 1978 and $100 thousand in 1977.

**Inventories**
Inventories are classified as follows at December 31:

| *(millions of dollars)* | 1978 | 1977 |
|---|---|---|
| Raw material | $ 86.1 | $ 73.3 |
| Work in process | 126.2 | 112.6 |
| Finished goods | 145.4 | 137.5 |
| Supplies | 11.3 | 11.5 |
| Total inventories | $369.0 | $334.9 |

Inventories valued using the last-in, first-out (LIFO) method amounted to $311.5 million and $254.4 million, respectively in 1978 and 1977. These inventories, if valued at current cost would have been greater by $127.9 million in 1978 and $96.1 million in 1977.

**Property, plant and equipment**
Following is a summary of Borg-Warner's property, plant and equipment at December 31:

| *(millions of dollars)* | 1978 | 1977 |
|---|---|---|
| Land | $ 11.7 | $ 11.9 |
| Buildings | 208.8 | 202.4 |
| Machinery and equipment | 443.7 | 424.7 |
| Construction in progress | 37.4 | 28.1 |
| Capital leases | 98.4 | 67.7 |
| | 800.0 | 734.8 |
| Less accumulated depreciation | (306.3) | (291.3) |
| Net property, plant and equipment | $493.7 | $443.5 |

**Long-term debt**
Details of the company's long-term debt are as follows at December 31:

| *(millions of dollars)* | 1978 | 1977 |
|---|---|---|
| Floating rate unsecured notes (at an average rate of approximately 13.4% at December 31, 1978 and 8.9% at December 31, 1977) due 1980 through 1984 | $ 33.1 | $ 36.1 |
| 8% debentures due through 1979 | — | 4.0 |
| Unsecured note due 1982 through 1984 (at an average rate of 7-5/8% at both December 31, 1978 and 1977) | 30.0 | 30.0 |
| 5-1/2% sinking fund debentures due 1992 | 25.6 | 25.6 |
| Unsecured notes (at an average rate of approximately 6.0% in 1978 and 5.2% in 1977) | 0.7 | 2.2 |
| Secured notes (at an average rate of approximately 7.1% in both 1978 and 1977) | 3.6 | 4.2 |
| Capital lease liability (at an average interest rate of 6.2% in 1978 and 7.6% in 1977) | 71.2 | 45.4 |
| Total long-term debt | $164.2 | $147.5 |

Annual principal payments required as of December 31, 1978 in millions of dollars, are as follows:

| | | | | | |
|---|---|---|---|---|---|
| 1980 | $20.0 | 1982 | $24.5 | 1984, | $22.6 |
| 1981 | $18.6 | 1983 | $20.8 | after 1984 | $57.7 |

# Notes to financial statements

**Capital stock**

Detail of capital stock is as follows at December 31:

| *(number of shares)* | Authorized | Issued | In treasury |
|---|---|---|---|
| Preferred stock, no par value $4.50 cumulative convertible, Series A | 5,000,000 | | |
| 1978 | | 212,176 | -0- |
| 1977 | | 276,302 | -0- |
| Common stock $2.50 par value: | | | |
| 1978 | 70,000,000 | 21,476,654 | 773,351 |
| 1977 | 70,000,000 | 21,476,654 | 928,946 |

The preferred stock has a stated value of $6.25 a share and involuntary liquidation value of $100 per share. Shares are convertible, at the holder's option, into 2-1/2 shares of common stock. In 1978, 51,493 preferred shares were converted to 128,715 common shares and in 1977, 1,504 preferred shares were converted to 3,759 common shares.

In 1978, 12,633 shares of the preferred stock were repurchased for $900 thousand and in 1977, 15,552 shares were repurchased for $1.1 million.

The company purchased 407,911 shares of common stock for the treasury in 1978 and 333,100 shares in 1977.

On February 16, 1977, Borg-Warner sold two million previously unissued shares of its common stock to Robert Bosch GmbH for $62.4 million. The shares were issued subject to certain restrictive covenants including a limitation on ownership to 10% or less of shares outstanding.

**Retained earnings**

Retained earnings for the years ended December 31 are summarized as follows:

| *(millions of dollars)* | 1978 | 1977 |
|---|---|---|
| Retained earnings at January 1 | $736.8 | $668.4 |
| Net earnings | 133.8 | 104.0 |
| | 870.6 | 772.4 |
| Deductions from retained earnings: Dividends declared: Preferred stock ($4.50 per share) | 1.2 | 1.3 |
| Common stock ($1.85 per share in 1978 and $1.65 per share in 1977) | 38.1 | 33.2 |
| Excess of cost over stated value on retirement and conversion of preferred stock | 4.0 | 1.1 |
| | 43.3 | 35.6 |
| Retained earnings at December 31 | $827.3 | $736.8 |

**Capital in excess of par value**

Capital in excess of par value for the years ended December 31 is summarized as follows:

| *(millions of dollars)* | 1978 | 1977 |
|---|---|---|
| Capital in excess of par value at January 1 | $104.5 | $ 46.2 |
| Capital in excess of par value on 2 million shares issued | -0- | 57.4 |
| Net difference between cost and proceeds of shares issued under employee investment plans (357,890 shares in 1978 and 217,700 shares in 1977) | .8 | .9 |
| Excess of cost over proceeds on shares issued under stock option plans (64,900 shares in 1978 and 59,700 in 1977) | (.4) | (.2) |
| Excess of market price over cost on shares issued as stock incentive rights under stock option plans (11,930 shares in 1978 and 13,819 shares in 1977) | .1 | — |
| Tax benefits arising from exercise of non-qualified stock options | .3 | .2 |
| Excess of market price over cost on shares awarded to certain employees (71 shares in 1978 and 38 shares in 1977) | — | — |
| Capital in excess of par value at December 31 | $105.3 | $104.5 |

**Commitments**

The company is committed to pay rents on non-cancellable leases with terms exceeding one year. Rental amounts committed in future years are summarized as follows:

| *(millions of dollars)* | Operating leases | Capital leases | Total |
|---|---|---|---|
| 1979 | $ 7.8 | $ 13.7 | $ 21.5 |
| 1980 | 6.2 | 13.7 | 19.9 |
| 1981 | 4.5 | 12.2 | 16.7 |
| 1982 | 2.7 | 11.6 | 14.3 |
| 1983 | 2.1 | 10.3 | 12.4 |
| 1984-88 | 4.1 | 30.3 | 34.4 |
| 1989-93 | 1.8 | 10.6 | 12.4 |
| 1994-1998 | 1.2 | 7.5 | 8.7 |
| After 1998 | 3.9 | 5.0 | 8.9 |
| Total | $34.3 | $114.9 | $149.2 |

Total rental expense amounted to $14.1 million in 1978 and $13.6 million in 1977. Included in total rental expenses are charges paid to the financial services companies of $2.1 million in 1978 and $1.7 million in 1977. Future capital lease rental payments include executory costs of $1.0 million, interest expenses of $33.4 million and principal payments of $80.5 million. The 1979 principal payments of $9.3 million are included in notes payable.

# Notes to financial statements

**Stock options**
Shareholders of Borg-Warner Corporation have approved restricted stock option plans for officers and certain key employees. Outstanding options for the purchase of common shares, which expire at various dates through 1988, have been granted under these plans at prices ranging from $17.94 to $32.75 per share. These prices correspond to the market value of the stock on the dates the options were granted.

Officers and certain key employees of Baker Industries had been granted options to purchase shares of Baker common stock. As a result of the acquisition of Baker Industries by Borg-Warner the options, which expire at various dates through 1985, were converted to options to purchase 69,565 shares of Borg-Warner common stock at prices ranging from $7.92 to $46.83.

A summary of changes in common shares under option for the years ended December 31, for all plans follows:

| | Number of shares | | Aggregate option price *(millions of dollars)* | |
|---|---|---|---|---|
| | 1978 | 1977 | 1978 | 1977 |
| Shares under option at January 1 | 824,400 | 767,550 | $ 20.7 | $ 18.3 |
| Options granted | 242,565 | 173,900 | 5.9 | 4.8 |
| Cancellations | (42,700) | (15,600) | (1.2) | (.4) |
| Options exercised | (64,900) | (60,800) | (1.3) | (1.2) |
| Options exercised as stock incentive rights | (37,300) | (40,650) | (.8) | (.8) |
| Shares under option at December 31 | 922,065 | 824,400 | $ 23.3 | $ 20.7 |
| Options exercisable | 599,200 | 577,950 | | |
| Options available for future grants | 381,800 | 530,400 | | |

**Other income**
Items included in other income consist of:

| *(millions of dollars)* | 1978 | 1977 |
|---|---|---|
| Interest income | $ 4.2 | $ 8.8 |
| Dividend income | 6.3 | 3.3 |
| Gain on capital asset disposals | 2.1 | .4 |
| Equity in earnings of affiliated companies | 5.7 | 4.9 |
| Total | $ 18.3 | $ 17.4 |

**Research and development costs**
Total research and development cost charged to expense amounts to $59.1 million in 1978 and $50.5 million in 1977.

**Finance charges from related companies**
Interest and other financial charges include finance charges paid to the financial services companies of $10.0 million in 1978 and $9.1 million in 1977 for accounts receivable financing.

**Acquisition of Baker Industries**
The total purchase price for the outstanding shares, warrants and options of Baker Industries was $122.6 million. The excess of the purchase price plus the direct costs of the acquisition over the fair value of the underlying net assets is being amortized over 40 years. A summary of Baker Industries for the years ended December 31, 1977 and 1978 is on page 30.

The 1977 consolidated net earnings and net earnings per common share of Borg-Warner on a pro forma basis, including Baker Industries, Inc. before extraordinary items, would have been $108.4 million and $5.14 respectively.

**Income taxes**
Provisions for taxes on income consist of:

| *(millions of dollars)* | 1978 | 1977 |
|---|---|---|
| Current: | | |
| Federal | $ 85.7 | $ 71.3 |
| State | 9.4 | 5.8 |
| Deferred | (3.9) | (2.9) |
| | 91.2 | 74.2 |
| Investment tax credits | 3.2 | 2.8 |
| Total | $ 88.0 | $ 71.4 |

Non-U.S. taxes included in the provisions are $18.1 million in 1978 and $11.6 million in 1977.

The analysis of the variance from the U.S. statutory income tax rate for manufacturing operations follows:

| | 1978 | 1977 |
|---|---|---|
| U.S. statutory rate | 48.0% | 48.0% |
| Increases (decreases) resulting from: | | |
| Income (net) from non-U.S. sources | (2.6) | — |
| State taxes | 2.5 | 1.9 |
| DISC | (1.4) | (2.0) |
| Investment tax credit | (1.5) | (1.6) |
| Other, net | (1.8) | (2.4) |
| Effective income tax rate | 43.2% | 43.9% |

Deferred income taxes result from timing differences in the recognition of certain items for tax and financial reporting purposes. In 1978, the deferred tax effect of the excess of tax over book depreciation amounted to $6.4 million, while lower of cost or market inventory reserves resulted in deferred tax benefits of $6.0 million. There were no other material timing differences in 1978.

The net amount of future tax benefits and deferred tax liabilities of $11.9 million in 1978 and $12.2 million in 1977 related to current items is included in other current assets, while the net amount related to non-current items is shown as a non-current liability.

Undistributed earnings of the company's DISC amounted to $37.7 million at December 31, 1978 and $31.6 million at December 31, 1977.

# Notes to financial statements

**Retirement benefit plans**
Retirement benefit expense amounted to $48.9 million in 1978 and $40.6 million in 1977.

The expense includes $5.1 million for retirement life insurance and medical benefits in 1978 and $4.6 million in 1977.

The actuarially computed value of vested benefits of certain of the plans exceeded the related pension funds and balance sheet accruals by $138 million at December 31, 1978 and by $122 million at December 31, 1977.

**Industry segments**
Industry and geographic segment data is shown on page 18.

**Contingent liabilities**
Borg-Warner Corporation has guaranteed $96.6 million of receivables sold to its financial services companies at December 31, 1978 and $94.3 million at December 31, 1977.

The company has also guaranteed borrowings of $60.4 million of its financial services companies and $72.2 million of other unconsolidated subsidiaries and affiliates at December 31, 1978. These guarantees were $58.2 million and $26.8 million respectively at December 31, 1977.

It is the opinion of management and counsel that various claims and litigation in which Borg-Warner is currently involved will not materially affect the company's financial position or earnings.

**Interim financial information (unaudited)**
The following information, in million of dollars, includes all adjustments, consisting only of normal recurring items, which the company considers necessary for a fair presentation of 1978 and 1977 quarterly results of operations.

| | 1978 | | | | |
|---|---|---|---|---|---|
| | Quarter ended | | | | |
| | March 31 | June 30 | Sept. 30 | Dec. 31 | Year 1978 |
| Net sales | $525.7 | $608.5 | $572.1 | $619.7 | $2,326.0 |
| Other income | 3.2 | 2.4 | 4.5 | 8.2 | 18.3 |
| | 528.9 | 610.9 | 576.6 | 627.9 | 2,344.3 |
| Cost of sales | 406.7 | 461.3 | 439.0 | 473.7 | 1,780.7 |
| Depreciation | 12.9 | 14.1 | 13.0 | 15.2 | 55.2 |
| Selling, general and administrative expenses | 64.9 | 65.2 | 70.8 | 74.0 | 274.9 |
| Interest and other financial charges | 5.9 | 6.5 | 7.5 | 6.8 | 26.7 |
| Minority interests | .3 | .8 | .6 | 1.3 | 3.0 |
| Provision for income taxes | 17.3 | 30.6 | 19.7 | 20.4 | 88.0 |
| | 508.0 | 578.5 | 550.6 | 591.4 | 2,228.5 |
| Earnings from manufacturing operations | 20.9 | 32.4 | 26.0 | 36.5 | 115.8 |
| Net earnings from financial services companies | 3.3 | 3.8 | 3.8 | 5.2 | 16.1 |
| Net earnings from protective services companies | 2.0 | 2.3 | 1.0 | (3.4) | 1.9 |
| Net earnings | $ 26.2 | $ 38.5 | $ 30.8 | $ 38.3 | $ 133.8 |
| Net earnings per share | $ 1.22 | $ 1.80 | $ 1.43 | $ 1.79 | $ 6.24 |

| | 1977 | | | | |
|---|---|---|---|---|---|
| | Quarter ended | | | | |
| | March 31 | June 30 | Sept. 30 | Dec. 31 | Year 1977 |
| Net sales | $469.7 | $517.6 | $498.4 | $546.2 | $2,031.9 |
| Other income | 3.7 | 4.0 | 4.7 | 5.0 | 17.4 |
| | 473.4 | 521.6 | 503.1 | 551.2 | 2,049.3 |
| Cost of sales | 364.6 | 391.8 | 382.6 | 415.8 | 1,554.8 |
| Depreciation | 11.9 | 13.6 | 13.0 | 12.4 | 50.9 |
| Selling, general and administrative expenses | 58.9 | 62.1 | 62.8 | 68.8 | 252.6 |
| Interest and other financial charges | 6.4 | 5.8 | 5.5 | 8.1 | 25.8 |
| Minority interests | .3 | .7 | .5 | 1.1 | 2.6 |
| Provision for income taxes | 14.8 | 22.2 | 17.4 | 17.0 | 71.4 |
| | 456.9 | 496.2 | 481.8 | 523.2 | 1,958.1 |
| Earnings from manufacturing operations | 16.5 | 25.4 | 21.3 | 28.0 | 91.2 |
| Net earnings from financial services companies | 2.9 | 3.2 | 3.2 | 3.5 | 12.8 |
| Net earnings | $ 19.4 | $ 28.6 | $ 24.5 | $ 31.5 | $ 104.0 |
| Net earnings per share | $ .95 | $ 1.35 | $ 1.15 | $ 1.48 | $ 4.93 |

# Notes to financial statements

**Firestone**

In November, 1978, Borg-Warner Corporation and The Firestone Tire & Rubber Company agreed to consider a merger of the two companies. The transaction is contingent on the execution of a definitive agreement and the approval of the directors and shareholders of both companies.

The merger would result in the formation of a holding company with Borg-Warner and Firestone continuing to operate as separate subsidiaries. The holding company would initially have three classes of securities: common stock, convertible preferred stock, and debentures. One share of holding company common stock will be exchanged for each share of Borg-Warner's 20.7 million common shares outstanding. Firestone shareholders will have the option of receiving holding company convertible preferred stock or debentures, with a targeted minimum of 30% and a maximum of 40% of Firestone's approximately 57.6 million common shares outstanding being exchangeable for debentures.

The acquisition of Firestone by the holding company would be accounted for under the purchase method.

**Replacement cost (unaudited)**

In compliance with Securities and Exchange Commission requirements, the company has estimated replacement cost information for inventories and plant and equipment. The effect on depreciation expense and cost of sales of the replacement cost of the assets indicated has also been estimated. The company's Annual Report to the SEC on Form 10-K, (available to any shareholder upon request) will contain the financial data and information as to the methods used to estimate replacement cost. The replacement cost amounts are not presented in this note since management believes that the replacement cost data as estimated cannot be used alone to impute the total effect of inflation on net income as reported.

In general, the replacement cost of plant and equipment and the related effect on depreciation expense is substantially higher than the comparable historical cost amounts reflected in the accompanying financial statements. While the replacement cost of inventories is substantially higher than the comparable historical cost, the effect on cost of sales is insignificant since the LIFO method of inventory valuation charges current cost of inventory replacement against sales in the statement of earnings.

# Notes to financial statements

## Financial Services Companies

### Principles of combination

Borg-Warner's wholly owned financial services subsidiaries—Borg-Warner Acceptance Corporation and consolidated subsidiaries, Borg-Warner Equities Corporation, Centaur Insurance Companies, Creon Insurance Agency, Borg-Warner International—Puerto Rico and Borg-Warner Investments Corporation—have been combined in the balance sheet below.

### Combined balance sheet

| December 31 | 1978 | 1977 |
|---|---|---|
| Assets | *(millions of dollars)* | |
| Cash | $ 15.0 | $ 18.0 |
| Marketable securities | 51.8 | 30.0 |
| Finance receivables: | | |
| Wholesale notes | 640.7 | 503.7 |
| Retail and direct notes | 283.0 | 227.8 |
| Leasing and commercial loans | 342.4 | 259.8 |
| Trade accounts | 135.3 | 128.9 |
| | 1,401.4 | 1,120.2 |
| Less allowance for losses of $30.8 million in 1978 and $16.8 million in 1977, and unearned finance charges | 177.0 | 120.9 |
| Finance receivables—net | 1,224.4 | 999.3 |
| Other assets, less allowance for losses of $4.5 million in 1978 and $7.1 million in 1977 | 111.1 | 42.0 |
| | $1,402.3 | $1,089.3 |

| Liabilities and shareholder's equity | | |
|---|---|---|
| Short-term notes payable | $ 737.7 | $ 568.2 |
| Outstanding checks and other liabilities | 157.9 | 111.9 |
| Long-term debt: | | |
| Senior debt | 230.2 | 190.0 |
| Senior subordinated debt | 90.9 | 72.5 |
| Junior subordinated debt | 51.0 | 31.0 |
| Shareholder's equity: | | |
| Capital stock | 23.0 | 22.0 |
| Paid-in capital from Borg-Warner Corporation | 34.1 | 29.0 |
| Retained earnings | 77.5 | 64.7 |
| Total shareholder's equity | 134.6 | 115.7 |
| | $1,402.3 | $1,089.3 |

### Summary of earnings

Comparative earnings for the financial services companies for the years ended December 31, are summarized below:

| *(millions of dollars)* | 1978 | 1977 |
|---|---|---|
| Total finance income | $210.7 | $161.9 |
| Costs and expenses: | | |
| Operating expenses | 63.8 | 53.0 |
| Provision for credit and insurance losses | 40.3 | 28.3 |
| Interest expense | 79.1 | 56.5 |
| Provision for income taxes | 11.4 | 11.3 |
| Total costs and expenses | 194.6 | 149.1 |
| Net earnings | $ 16.1 | $ 12.8 |

### Finance receivables

Includes trade accounts receivable, commercial loans and lease receivables of $128 million in 1978 and $115 million in 1977 related to transactions with Borg-Warner.

In 1978 and 1977 finance receivables also include $19.9 million and $18.9 million respectively of commercial loans made by Borg-Warner Equities Corporation to real estate joint ventures in which Borg-Warner Equities Corporation has an equity interest.

### Long-term debt

The long-term debt bears interest and matures as follows: senior—7.5% to 10.8% (weighted average: 1978, 9.0%; 1977, 8.9%), due 1980-1993; senior subordinated—7.8% to 13.2% (weighted average: 1978, 9.2%; 1977, 8.9%), due 1981-1998; junior subordinated—8.2% to 10% (weighted average: 1978, 9.3%; 1977, 9.2%), due 1979-1998.

The senior and senior subordinated long-term debt are stated net of debentures acquired and submitted to the trustees to meet future sinking fund requirements. Gains realized on the acquisition of the debentures have been netted against interest expense. The aggregate amounts of long-term debt maturities for the five years ended December 31, 1983 in millions of dollars are as follows: 1979, $1.0; 1980, $84.0; 1981, $68.8; 1982, $9.5; 1983, $11.7.

### Retained earnings

At December 31, 1978, under provisions of certain long-term debt agreements, approximately $6.1 million of retained earnings was available for the payment of dividends or purchase of Borg-Warner Acceptance Corporation's capital stock.

In 1978 and 1977, Borg-Warner Acceptance Corporation declared and paid a dividend of $3 million and $2 million, respectively to Borg-Warner Corporation. The cost of certain marketable equity securities has been reduced to market value by establishment of a valuation allowance with a balance of $700 thousand at December 31, 1978 and $400 thousand at December 31, 1977; the allowance was increased by $300 thousand in 1978 and reduced by $100 thousand in 1977 with offsetting entries to retained earnings.

# Notes to financial statements

**Protective Services Companies**

Borg-Warner's wholly owned subsidiary, Baker Industries, was acquired through a purchase of stock effective December 31, 1977. Comparative balance sheets at December 31, 1978 and 1977 as well as the related statement of earnings for the year ended December 31, 1978 are presented below. Included for comparative purposes is an unaudited pro forma statement of earnings for the year ended December 31, 1977 as though Baker Industries had been acquired at January 1, 1977.

**Basis of consolidation**

The consolidated financial statements include the accounts of Baker Industries and its subsidiaries, all of which are wholly owned. Included in other assets in the consolidated balance sheets is the company's 50% interest in a foreign corporation. This investment, which is not significant, is carried at equity in underlying net assets (equity in net earnings $675 thousand in 1978; $161 thousand in 1977).

**Consolidated balance sheet**

| December 31 | 1978 | 1977 |
|---|---|---|
| Assets | *(millions of dollars)* | |
| Current assets<br>Cash | $ 1.0 | $ 2.8 |
| Receivables, less allowance for doubtful accounts of $1.6 million in 1978, $1.1 million in 1977 | 30.5 | 26.9 |
| Inventories | 22.6 | 16.4 |
| Deferred income taxes principally on unearned service revenues | 3.9 | 2.9 |
| Prepaid expenses | 2.2 | 1.6 |
| Total current assets | 60.2 | 50.6 |
| Property, plant and equipment | 61.8 | 54.5 |
| Excess of purchase price over fair value of tangible assets acquired | 68.0 | 69.3 |
| Other assets and deferred charges | 4.5 | 1.6 |
| | $194.5 | $176.0 |
| Liabilities and shareholder's equity | | |
| Current liabilities | $ 52.3 | $ 38.2 |
| Long-term debt | 14.2 | 12.7 |
| Deferred income taxes | 2.6 | — |
| Deferred income—subscribers' installations | 3.7 | 2.5 |
| Shareholder's equity | 121.7 | 122.6 |
| | $194.5 | $176.0 |

**Revenue recognition**

Service revenues are recorded in income as they are earned. Installation fees charged to Alarm division subscribers and related selling expenses applicable to the procurement of new contracts are deferred and reflected in income over five years (the period of most initial service contracts).

**Statement of earnings**

| Years ended December 31 *(millions of dollars)* | 1978 | pro forma 1977 |
|---|---|---|
| Income:<br>Sales and service revenues | $208.8 | $183.3 |
| Other income | 0.7 | 0.3 |
| Total income | 209.5 | 183.6 |
| Costs and expenses:<br>Cost of sales and services rendered | 147.3 | 123.3 |
| Selling, general and administrative expenses | 45.9 | 36.8 |
| Depreciation | 7.7 | 6.8 |
| Interest expense | 2.6 | 1.5 |
| Total costs and expenses | 203.5 | 168.4 |
| Earnings before provision for facility closing and related expenses and income taxes | 6.0 | 15.2 |
| Provision for facility closing and related expenses | 2.3 | — |
| Earnings before income taxes and extraordinary item | 3.7 | 15.2 |
| Income taxes | 1.8 | 7.3 |
| Earnings before extraordinary item | 1.9 | 7.9 |
| Extraordinary item | — | 3.3 |
| Net earnings | $ 1.9 | $ 4.6 |

**Inventories**

Inventories are valued principally at the lower of first-in, first-out cost or market.

| *(millions of dollars)* | 1978 | 1977 |
|---|---|---|
| Finished goods | $ 9.0 | $ 3.4 |
| Work-in-process, raw materials and supplies | 10.8 | 10.4 |
| Parts and supplies—subscribers' installations | 2.8 | 2.6 |
| Total | $22.6 | $16.4 |

**Property, plant and equipment**

| *(millions of dollars)* | 1978 | 1977 |
|---|---|---|
| Land | $ 1.1 | $ 1.1 |
| Buildings | 5.1 | 6.1 |
| Machinery and equipment | 12.1 | 8.4 |
| Armored service vehicles | 4.8 | 3.4 |
| Central station equipment | 3.5 | 3.0 |
| Subscribers' installations | 42.0 | 32.5 |
| Less accumulated depreciation | 6.8 | — |
| Net property, plant and equipment | $61.8 | $54.5 |

# Notes to financial statements

**Protective Services Companies**

**Long-term debt**
The composition of long-term debt is as follows:

| *(millions of dollars)* | 1978 | 1977 |
|---|---|---|
| Notes payable to an insurance company | $ — | $10.6 |
| Notes payable to Borg-Warner | 10.1 | — |
| Capitalized lease obligation | 5.8 | 2.7 |
| Mortgage notes and sundry indebtedness | 1.1 | 1.1 |
| | 17.0 | 14.4 |
| Less current installments | 2.8 | 1.6 |
| Total | $14.2 | $12.8 |

The aggregate maturities of long-term debt in millions of dollars are $2.8 in 1979, $3.0 in 1980, $1.9 in 1981, $1.5 in 1982 and $1.4 in 1983.

**Amortization of intangible assets**
Identifiable intangible assets are being amortized over their respective lives. Unidentifiable intangible assets arising principally from the acquisition by Borg-Warner of Baker Industries, Inc. are being amortized over a period of 40 years.

**Commitments and contingencies**
Included in current liabilities is an amount accrued in 1977 as an extraordinary item for anticipated costs and expenses relating to the settlement of certain litigation against Wells Fargo Armored Service Corporation, a wholly owned subsidiary of Baker Industries, alleging violations of the antitrust laws. Management believes that the recorded liability is a reasonable estimate of such anticipated costs and expenses.

**Provision for facility closing and related items**
In December of 1978, the company provided $2.3 million for the closing of a facility and for expenses related to the consolidation of smoke alarm production. Included in the provision are estimated costs related to the closing of the plant, losses on the sale of the plant and other fixed assets, severance costs, and other costs expected to be incurred over a one year period. In addition, cost of sales and services rendered includes costs of cancelling purchase commitments and estimated losses on inventories amounting to $3.5 million.

PEAT, MARWICK, MITCHELL & CO.

CERTIFIED PUBLIC ACCOUNTANTS

The Board of Directors and Shareholders
Borg-Warner Corporation:

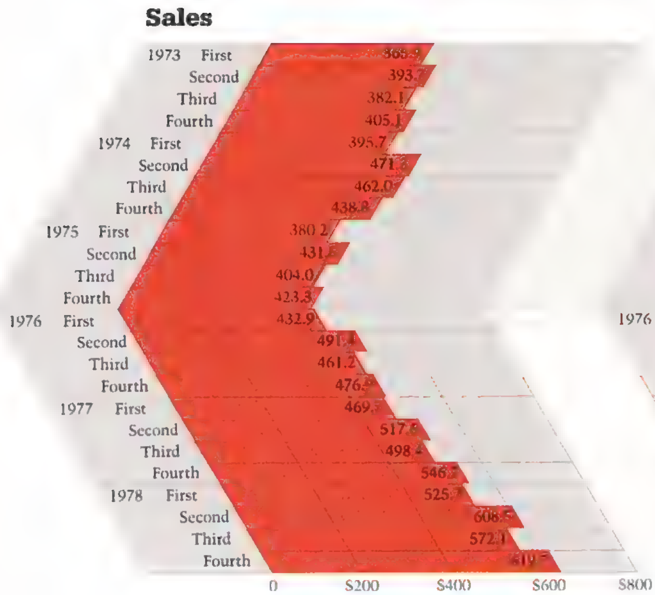
We have examined the balance sheet of Borg-Warner Corporation and consolidated subsidiaries as of December 31, 1978 and 1977, and the related statements of earnings and changes in financial position for the years then ended. Our examinations were made in accordance with generally accepted auditing standards, and accordingly included such tests of accounting records and such other auditing procedures as we considered necessary in the circumstances.

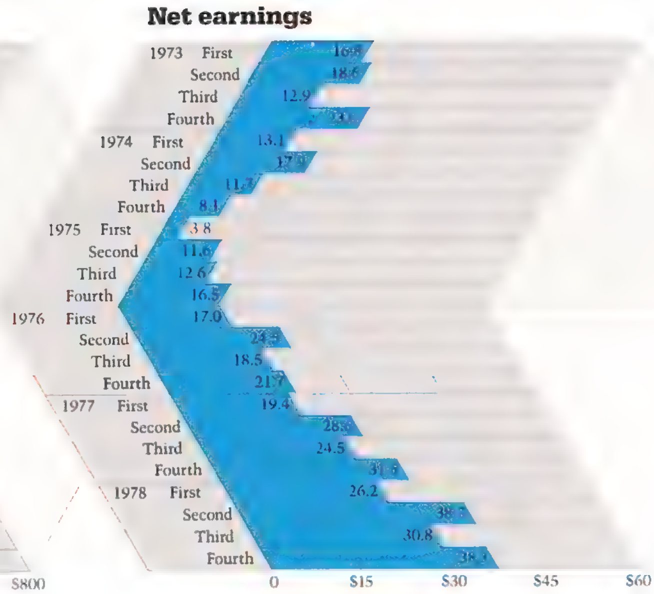
In our opinion, the aforementioned financial statements present fairly the financial position of Borg-Warner Corporation and consolidated subsidiaries at December 31, 1978 and 1977, and the results of their operations and changes in their financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

Peat, Marwick, Mitchell & Co.

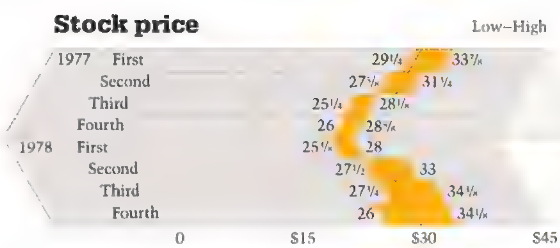
Chicago, Illinois
February 16, 1979

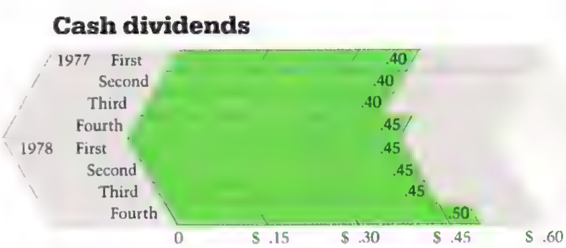
# Quarterly Data







# Management's discussion and analysis of the summary of earnings

The summary of earnings for the years 1974 through 1978 is included in the eleven-year comparative financial summary on pages 34 and 35 of this annual report. The accompanying operating and financial review on pages 2 through 12 provides additional information regarding the company's operations and financial performance.

**Sales and Other Income**

Net sales were $2.3 billion for 1978, a 14% increase from the 1977 level. 1977 sales were 9% above the 1976 level. Sales and net earnings for each of the company's groups are contained in the table on page 1 of this report. Air Conditioning and Transportation Equipment group sales increased 18% and 17% respectively from 1977. Air Conditioning sales reflect favorable situations in generally all markets served and success of products which minimize energy consumption, continuing the upward trends shown in 1977 and 1976. Transportation Equipment group sales improved substantially in all business areas except for the aftermarket area where growth matched the rate of inflation. 1977 sales were improved in each group compared with 1976. In 1977, the greatest increase from the prior period was in the Air Conditioning group for the reasons indicated above.

Sales by Borg-Warner consolidated units outside the U.S. were $633 million, up 18% from $535 million in 1977 due to improved economic conditions in the geographic areas in which we operate. 1977 was up 2% from 1976. The generally poor performance of non-U.S. units in 1977 was primarily due to stagnant economies in those areas. As a percentage of total sales, non-U.S. sales were 27.2% in 1978 and 26.3% in 1977. Export sales by U.S. units of $213 million in 1978 were up 7% over 1977. Exports of $199 million in 1977 represented a 24% increase over 1976 primarily reflecting shipments to Russia.

Other income, including dividends from unconsolidated subsidiaries and other investments, earnings from affiliated companies and interest, was up 5% in 1978. A breakdown of this item is on page 26. Dividends received more than offset decreased interest income resulting from lower investment in short-term securities throughout the year than in 1977. Other income in 1977 was down 9% from 1976. Although interest income increased, as did equity in earnings of affiliates, these gains were not large enough to make up for the decline in other segments. Other income in 1976 included a $4.2 million gain on the repurchase of sinking fund debentures, while in 1977 there were no material sinking fund purchases.

**Costs and Expenses**

Cost of sales and selling, general and administrative expenses increased in 1978 in proportion to the 14% increase in sales as did the increase in 1977 of 9%. In 1978, the company's research, development and new product engineering expenditures increased approximately 17% to $59.1 million compared with 1977 reflecting the increase in the company's research efforts. These expenditures in 1977 were $50.5 million, compared to $44.2 million in 1976. Rent expense of $22.0 million in 1976, decreased in 1977 to $13.6 million, due primarily to the capitalization of certain leases in 1977.

Depreciation increased 8% in 1978 compared with 1977's 17% increase from 1976. The 1977 increase resulted from a combination of higher capital asset investment and the requirement to account for certain leases as if the equipment had actually been purchased.

Total debt including capitalized leases increased during 1978 to $195 million at year-end, from $171 million at December 31, 1977. Interest expense and other financial charges in 1978 were $26.7 million, slightly above the prior year. Of the 1977 amount, $3.6 million represented interest on capitalized leases, included for the first time.

The provision for income taxes in 1978 was 43.2% of earnings from manufacturing operations, compared with an effective tax rate of 43.9% in 1977. The 1978 and 1977 provisions, covering taxes on income for federal, state and local governments, are more in line with expectations than the tax provision required in 1976, reflecting an abnormally high rate of 48.5% because of a comparatively large foreign currency charge against which no tax benefits were applied.

**Earnings**

Net earnings for 1978 of $134 million were 29% above the $104 million earned in 1977. The 1977 earnings were 27% above the 1976 level. Per share earnings of $6.24 in 1978 were 27% over 1977 and the $4.93 in 1977 was 17% higher than in 1976. The lower rate of increase in per share earnings in 1977 was due to the larger number of common shares outstanding after the sale of two million newly issued shares to Robert Bosch GmbH of West Germany.

All of the company's manufacturing groups showed an increase in earnings in 1978. Comparing 1977 with 1976, each manufacturing group showed an increase except Chemicals and Plastics. This group was affected by an erosion in margins worldwide, resulting from increased costs of energy, freight, certain raw materials and labor.

Earnings from the Financial Services companies increased 26% in 1978. Contributing to the improvement were increased inventory floor plan loan volume, increased commercial and leasing volume and higher net investment income from insurance operations. The 21% increase in 1977 was primarily due to higher volume. The combined balance sheet and summary of earnings for this group is included on page 29.

Baker Industries, Inc. contributed $1.9 million in earnings in 1978. The acquisition of Baker Industries, Inc. had no impact on 1977 results since the transaction is being treated as a purchase effective at the close of business, December 31, 1977. Included in Baker's results is a $3.0 net after tax provision for the closing of a facility and related expenses to consolidate smoke alarm production and provide for inventory losses.

Net earnings from consolidated non-U.S. units were $23.9 million in 1978, compared with $4.8 million in 1977 and $3.3 million in 1976. Improved operations at Chemicals Europe and Transmission U.K. units contributed to a net after-tax profit in Europe compared with a loss in 1977. Profit margins on operations outside of the U.S. had been low due to higher inflation, higher interest costs and slower economic recovery. In 1976, a major factor was a $12.2 million charge against earnings due to a foreign currency adjustment, which in 1977 was only $1.0 million compared with a $62 thousand credit in 1978. Also in 1977, the method of accounting for a substantial portion of non-U.S. inventories was changed to last-in, first-out (LIFO).

# Eleven-year comparative summary of earnings and related statistics

| **Earnings** | Year ended December 31 | 1978 | 1977 |
|---|---|---|---|
| | | *(millions of dollars except per share data)* | |
| | Sales and other income: | | |
| | Net sales | $2,326.0 | $2,031.9 |
| | Other income | 18.3 | 17.4 |
| | | 2,344.3 | 2,049.3 |
| | Costs and expenses: | | |
| | Cost of sales | 1,780.7 | 1,554.8 |
| | Depreciation | 55.2 | 50.9 |
| | Selling, general and administrative expenses | 274.9 | 252.6 |
| | Interest and other financial charges | 26.7 | 25.8 |
| | Minority interests | 3.0 | 2.6 |
| | Provision for income taxes | 88.0 | 71.4 |
| | | 2,228.5 | 1,958.1 |
| | Earnings from manufacturing operations | 115.8 | 91.2 |
| | Earnings from financial services companies | 16.1 | 12.8 |
| | Earnings from protective service companies | 1.9 | — |
| | Net earnings | $ 133.8 | $ 104.0 |
| **Per common share** | Net earnings | $ 6.24 | $ 4.93 |

See accompanying management discussion and analysis of the summary of earnings on page 33.

| **Operating data** | Year ended December 31 | 1978 | 1977 |
|---|---|---|---|
| | | *(millions of dollars except per share data)* | |
| | Return on net sales | 5.8% | 5.1% |
| | Return on sales from manufacturing operations | 5.0 | 4.5 |
| | Dividends | $ 39.3 | $ 34.5 |
| | Per common share paid | 1.85 | 1.65 |
| | Capital expenditures | 115.3 | 77.0 |
| | Research, development and engineering expense | 59.1 | 50.5 |

| **Financial data** | December 31 | 1978 | 1977 |
|---|---|---|---|
| | | *(millions of dollars except per share data)* | |
| | Current assets | $ 789.1 | $ 648.7 |
| | Current liabilities | 388.3 | 315.5 |
| | Net working capital | 400.8 | 333.2 |
| | Current ratio | 2.03 to 1 | 2.06 to 1 |
| | Property, plant and equipment, net | 493.7 | 443.5 |
| | Notes payable and long-term debt | 194.6 | 171.3 |
| | Debt to equity ratio | 20.1% | 19.6% |
| | Shareholders' equity | 966.1 | 872.2 |
| | Return on average equity | 14.6% | 12.9% |
| | Book value per common share | 45.64 | 41.10 |
| **Other data** | | | *(thousands)* |
| | Average number of common shares outstanding | 21,416 | 21,093 |
| | Number of shareholders at year end | 55.9 | 57.0 |
| | Average number of employees | 47.0 | 38.9 |

*Includes net expense of $20.5 million, or $1.07 per share of common stock, resulting from accounting changes, principally to reflect the cost of substantially all domestic inventories at LIFO (last-in, first-out).

| 1976 | 1975 | 1974 | 1973 | 1972 | 1971 | 1970 | 1969 | 1968 |
|---|---|---|---|---|---|---|---|---|
| $1,862.4 | $1,639.0 | $1,767.8 | $1,546.8 | $1,283.2 | $1,148.2 | $1,114.8 | $1,087.0 | $1,027.7 |
| 19.1 | 14.3 | 6.3 | 5.6 | 4.7 | 4.6 | 9.0 | 3.3 | 4.8 |
| 1,881.5 | 1,653.3 | 1,774.1 | 1,552.4 | 1,287.9 | 1,152.8 | 1,123.8 | 1,090.3 | 1,032.5 |
| 1,440.2 | 1,308.2 | 1,419.9 | 1,179.8 | 973.0 | 885.4 | 858.2 | 825.6 | 787.2 |
| 43.4 | 42.8 | 43.1 | 40.5 | 37.3 | 34.7 | 33.0 | 30.8 | 29.2 |
| 231.3 | 206.4 | 206.3 | 182.3 | 153.5 | 131.8 | 134.9 | 123.7 | 118.0 |
| 26.0 | 36.4 | 38.1 | 21.7 | 17.1 | 17.4 | 19.6 | 11.7 | 8.9 |
| 2.7 | 2.1 | 2.0 | 2.0 | 1.2 | .9 | 1.3 | .6 | .3 |
| 66.8 | 21.0 | 21.9 | 61.6 | 52.8 | 40.2 | 37.0 | 48.3 | 40.9 |
| 1,810.4 | 1,616.9 | 1,731.3 | 1,487.9 | 1,234.9 | 1,110.4 | 1,084.0 | 1,040.7 | 984.5 |
| 71.1 | 36.4 | 42.8 | 64.5 | 53.0 | 42.4 | 39.8 | 49.6 | 48.0 |
| 10.6 | 8.1 | 8.0 | 6.8 | 6.2 | 5.0 | 3.7 | 2.4 | 1.5 |
| — | — | — | — | — | — | — | — | — |
| $ 81.7 | $ 44.5 | $ 50.8* | $ 71.3 | $ 59.5** | $ 47.4 | $ 31.8‡ | $ 52.0 | $ 49.5 |
| $ 4.21 | $ 2.31 | $ 2.66* | $ 3.70 | $ 3.03** | $ 2.45 | $ 1.65‡ | $ 2.65 | $ 2.49 |

| 1976 | 1975 | 1974 | 1973 | 1972 | 1971 | 1970 | 1969 | 1968 |
|---|---|---|---|---|---|---|---|---|
| 4.4% | 2.7% | 2.9%* | 4.6% | 4.6%** | 4.1% | 2.9%‡ | 4.8% | 4.8% |
| 3.8 | 2.2 | 2.4* | 4.2 | 4.1** | 3.7 | 3.6‡ | 4.6 | 4.7 |
| $ 27.5 | $ 26.4 | $ 26.1 | $ 26.4 | $ 24.6 | $ 24.5 | $ 18.5 | $ 24.8 | $ 24.2 |
| 1.41 | 1.35 | 1.35 | 1.35 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| 36.0 | 55.9 | 83.0 | 69.6 | 62.8 | 55.2 | 69.7 | 51.5 | 45.4 |
| 44.2 | 42.2 | 42.2 | 41.2 | 42.7 | 39.2 | 40.0 | 39.1 | 34.8 |

| 1976 | 1975 | 1974 | 1973 | 1972 | 1971 | 1970 | 1969 | 1968 |
|---|---|---|---|---|---|---|---|---|
| $ 688.5 | $ 589.5 | $ 687.5 | $ 641.9 | $ 528.3 | $ 502.1 | $ 522.1 | $ 536.5 | $ 467.5 |
| 318.6 | 243.5 | 264.2 | 291.4 | 188.0 | 168.7 | 195.0 | 220.8 | 171.3 |
| 369.9 | 346.0 | 423.3 | 350.5 | 340.3 | 333.4 | 327.1 | 315.7 | 296.2 |
| 2.16 to 1 | 2.42 to 1 | 2.60 to 1 | 2.20 to 1 | 2.81 to 1 | 2.98 to 1 | 2.68 to 1 | 2.43 to 1 | 2.73 to 1 |
| 423.6 | 397.6 | 412.8 | 400.8 | 377.8 | 364.8 | 350.6 | 320.9 | 291.9 |
| 206.1 | 180.9 | 301.5 | 214.6 | 174.3 | 183.2 | 206.8 | 207.9 | 146.6 |
| 27.8% | 26.3% | 45.0% | 33.4% | 28.6% | 31.9% | 37.4% | 38.2% | 27.8% |
| 742.3 | 689.1 | 670.0 | 642.4 | 610.4 | 574.9 | 553.1 | 543.8 | 528.2 |
| 11.4% | 6.6% | 7.7%* | 11.4% | 10.0%** | 8.4% | 5.8%‡ | 9.8% | 9.6% |
| 38.36 | 35.51 | 34.63 | 33.47 | 30.93 | 29.40 | 28.20 | 27.49 | 26.10 |
| 19,414 | 19,266 | 19,107 | 19,272 | 19,640 | 19,329 | 19,318 | 19,623 | 19,893 |
| 58.6 | 63.3 | 63.7 | 61.6 | 60.8 | 64.3 | 67.0 | 65.7 | 66.7 |
| 38.9 | 39.6 | 46.5 | 46.3 | 42.9 | 41.4 | 43.4 | 41.6 | 39.6 |

**After extraordinary items, net of income tax, of $260 thousand or one cent per share of common stock.
‡ After extraordinary items, net of income tax, of $11.7 million or 60 cents per share of common stock.

# Officers

**James F. Beré**
Chairman and
Chief Executive Officer
*18 years service*

**Robert O. Bass**
President
*45 years service*

**James J. Gavin, Jr.**
Senior Vice President
Finance
*10 years service*

**Russell J. Parsons**
Senior Vice President,
General Counsel and Secretary
*32 years service*

**Donald W. Collier**
Senior Vice President
Corporate Strategy
*18 years service*

**Jerry E. Dempsey**
Executive Vice President
(Chemicals & Plastics
Transportation Equipment)
*23 years service*

**Elmer D. Robinson**
Executive Vice President
(Air Conditioning
Industrial Products)
*23 years service*

**Robert E. LaRoche**
Vice President
(Financial and
Protective Services)
*23 years service*

**Frank E. Pilling**
Vice President
(Transportation
Equipment)
*29 years service*

**Peter C. Valli**
Vice President
(Energy Equipment)
*20 years service*

**James R. Deters**
Vice President and
Controller
*9 years service*

**William M. Valiant**
Vice President and Treasurer
*31 years service*

**James H. Ingersoll**
Vice President
External Affairs
*33 years service*

**Robert A. Morris**
Vice President
Communications
*2 years service*

**Donald C. Trauscht**
Vice President
Business Development and
Acquisitions
*11 years service*

**William H. Weltyk**
Vice President
Engineering and
Development
*19 years service*

**John P. Rozinsky**
Assistant Controller
*13 years service*

**Frederic C. Kautz**
Assistant Treasurer
*13 years service*

**Mark F. Ogan**
Assistant Treasurer
*9 years service*

**James R. Lidman**
Assistant Secretary
*12 years service*

**Jeannette E. Terris**
Assistant Secretary
*30 years service*

**Jack L. Wentz**
Assistant Secretary
*16 years service*

**Management Committees**

**Policy and Planning Committee**
James F. Beré, Chairman
Robert O. Bass
Donald W. Collier
James J. Gavin, Jr.
Russell J. Parsons
Elmer D. Robinson

**Operations Committee**
Robert O. Bass, Chairman
Jerry E. Dempsey
James R. Deters
Robert E. LaRoche
Frank E. Pilling
Elmer D. Robinson
Peter C. Valli

# Directors

**Hans Bacher**
Member, Board of Management
Robert Bosch GmbH
Stuttgart, West Germany
*Director since 1977*

**Robert O. Bass**
President
Borg-Warner Corporation
*Director since 1973*

**James F. Beré**
Chairman and Chief Executive Officer
Borg-Warner Corporation
*Director since 1968*

**Weston R. Christopherson**
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Chicago, Illinois
*Director since 1973*

**Gaylord Donnelley**
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R. R. Donnelley & Sons Company
Chicago, Illinois
*Director since 1966*

**Gaylord Freeman**
Honorary Chairman
First Chicago Corporation and
The First National Bank of Chicago
*Director since 1957*

**James J. Gavin, Jr.**
Senior Vice President—Finance
Borg-Warner Corporation
*Director since 1969*

**William B. Graham**
Chairman and Chief Executive Officer
Baxter Travenol Laboratories, Inc.
Deerfield, Illinois
*Director since 1971*

**Raymond M. Holliday**
Chairman of the Board
and Chief Executive Officer
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Houston, Texas
*Director since 1975*

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Deputy Chairman, Board of Trustees
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*Director since 1976 and 1955-72*

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Retired Chairman of the Board
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Chicago, Illinois
*Director since 1959*

**Hans L. Merkle**
Chairman of the Board of Management
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Stuttgart, West Germany
*Director since 1977*

**James J. O'Connor**
President
Commonwealth Edison Company
Chicago, Illinois
*Director since 1978*

**James E. Olson**
Vice Chairman
American Telephone &
Telegraph Company
New York, New York
*Director since 1974*

**Thomas C. Theobald**
Executive Vice President
Citibank, N.A.
New York, New York
*Director since 1977*

**Committees of the Board**

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James F. Beré, Chairman
Robert O. Bass
James J. Gavin, Jr.
William B. Graham
William G. Karnes

**Compensation Committee**
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James E. Olson, Vice Chairman
Weston R. Christopherson
Gaylord Donnelley
William G. Karnes

**Finance Committee**
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Gaylord Donnelley
Gaylord Freeman
William B. Graham
Raymond M. Holliday
Robert S. Ingersoll
Thomas C. Theobald

**Audit Committee**
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Gaylord Donnelley
Robert S. Ingersoll
James E. Olson

**Nominating Committee**
William B. Graham, Chairman
Weston R. Christopherson
James E. Olson
Thomas C. Theobald

# Principal operations

Borg-Warner Corporation has division, subsidiary, and joint-venture operations in the United States and 20 other countries.

Although most Borg-Warner products are sold to other manufacturers, many are used daily by persons in all parts of the world. Millions of telephones, for example, are molded of Borg-Warner thermoplastics. Thousands of motorists drive cars equipped with a Borg-Warner transmission. And hundreds of the world's large public and commercial buildings are cooled with the help of York equipment.

These operations are organized into the five product and service groups described below.

**Air Conditioning**
York provides environment control equipment for homes, for industry, for transportation, and buildings of all kinds. York also supplies refrigeration systems for the food, petrochemical, oil, and gas industries. The division has plants in the United States, Canada, England, and France, and joint-venture or partially owned operations in Australia, Japan, Mexico, and West Germany.

York Automotive division, operating only in the United States, manufactures compressors for automotive air conditioning systems.

**Chemicals & Plastics**
Borg-Warner Chemicals is the world's main supplier of ABS thermoplastic resins and Blendex® impact modifiers. Other major products include polymer additives and dispersions, intermediate chemicals, and styrene monomer. The company has plants in the United States, Canada, The Netherlands, and Scotland, and joint-venture or partially owned operations in the United States, Australia, and Japan.

Kemron Environmental Services, Marietta, Ohio, is involved in monitoring and analyzing air, water, and waste effluents; and industrial hygiene consultation and monitoring.

**Industrial Products**
A wide range of products, primarily capital goods, is supplied by this group. The Energy Equipment units—Byron Jackson Pump, Nuclear Valve, Mechanical Seal divisions, and Centrilift, Inc.—manufacture components for the power generation, municipal water supply, and petroleum industries. These include centrifugal, nuclear, and submersible oil well pumps; mechanical seals, and valves. Production facilities are located in the United States, Canada, Mexico, and The Netherlands, as well as at joint-venture or partially owned operations in Argentina, Australia, Japan, and Peru.

A variety of power transmission products, principally timing chain, motor drives, ball and roller bearings, clutches, and torque limiters, is made at Morse Chain division plants in the United States, Canada, and England. Morse also has joint-venture or partially owned operations in Japan and Mexico.

Ingersoll Products division is a supplier of agricultural equipment, primarily plow, harrow, and seeder discs, produced at plants in the United States and Mexico and at partially owned operations in Argentina and Colombia.

Borg-Warner Educational Systems is the developer and manufacturer of System80®, an audiovisual individualized learning unit. Borg-Warner Health Products, Inc. produces hospital beds and patient room furniture. Manufacturing facilities of both these companies are located solely in the United States.

**Transportation Equipment**
This group's 30 operating units serve the world market for vehicles for work and pleasure on and off the road. In addition to automatic and manual transmissions, the group produces clutches, four-wheel drive units, differentials, brake components, axles, carburetion and ignition equipment, emission controls, radiators, and replacement parts. Some 44 locations in the United States, Brazil, Canada, England, Ireland, Mexico, Venezuela, Wales, and West Germany produce this broad range of products, as well as joint-venture or partially owned operations in Australia, Japan, Mexico, New Zealand, Puerto Rico, South Africa, and West Germany.

**Financial & Protective Services**
The largest unit in this group is Borg-Warner Acceptance Corporation. Its major businesses are leasing and wholesale and commercial financing, offered in the United States, Australia, Belgium, Canada, England, The Netherlands, Puerto Rico, and West Germany. The group also provides credit insurance, property and casualty reinsurance, equity investment, and transportation and traffic services in the United States.

Baker Industries, Inc., Parsippany, New Jersey, became a subsidiary in January, 1978, and is a broad-based protective service organization. The three Wells Fargo armored car, guard, and alarm companies, and the Pyrotronics division, which manufactures early warning smoke and fire detection systems, account for Baker's major businesses. Two smaller divisions market a line of dry chemical fire extinguishing agents (Pyro Chem) and provide janitorial and related services (Consolidated Facility Services). Baker also has operations in Canada and Spain.

**Trademarks**
The following names appearing in the illustrations in this annual report are trademarks of Borg-Warner Corporation.

| | |
|---|---|
| **Blendex®** | resinous modifiers |
| **Borg & Beck®** | clutches |
| **Byron Jackson®** | pumps and motors |
| **Centrilift®** | pumps |
| **Cycolac®** | plastics |
| **Guardiøn™** | smoke and fire detectors |
| **Hy-Vo®** | chains |
| **Kemron®** | environmental services |
| **Morse®** | motor controls and chains |
| **Pony Express®** | transportation services |
| **Pyr-A-Larm®** | fire detection systems |
| **Pyr-A-Lon®** | fire extinguishing systems |
| **Rockford®** | clutches |
| **System80®** | educational equipment and systems |
| **Wells Fargo®** | protective security services |
| **York®** | air conditioning |

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Chicago, Illinois 60604